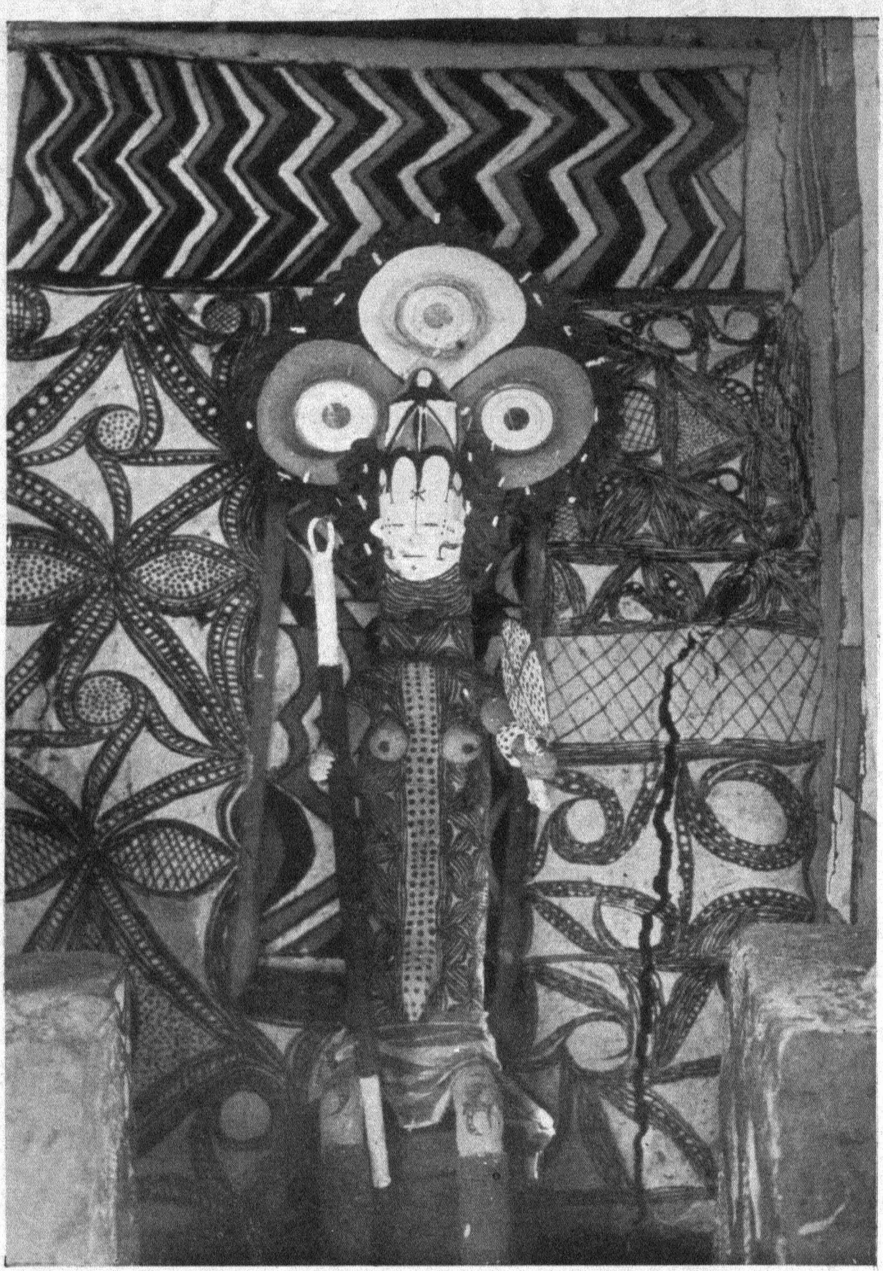

ALA, THE EARTH GODDESS OF THE IBOS.

By courtesy of P. Amaury Talbot and the Oxford University Press.

THE EARTH GODDESS

A STUDY OF NATIVE FARMING ON THE WEST AFRICAN COAST

by

G. HOWARD JONES, M.A.

Director of the Mycological Section, Ministry of Agriculture, Egypt
Formerly Mycologist, Department of Agriculture, Nigeria

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PREFACE

THIS book grew out of five years' observation of native peasant farming under primitive African conditions while the author was engaged on official agricultural work in Nigeria and Sierra Leone. There are so many features of West Coast farming that seem so new, and yet are so old when one comes to know them, that one's interest is aroused in searching for causes: and as the lines of enquiry necessarily broaden out it becomes obvious that West Coast agriculture is not only of technical interest to agriculturalists, but closely concerns administrators, traders, and in fact all who have to deal with the West Coast. On a broader basis, too, West Coast agriculture undoubtedly has a contribution to make towards the methods to be used in developing tropical countries.

On first landing on the West Coast one naturally begins by noting the technical divergencies from European farming and seeking out the reasons, but one very soon comes across practices that must either be unbelievably foolish or else can only be adequately explained by the unexpected possibility that the aims and outlook of the native farmers may not be the same as ours. It soon becomes quite clear that purely technical agricultural considerations will never explain the West Coast system of agriculture: it is essential that the human point of view, the social anthropology, of the native farmers who actually work the system must be taken into account.

In looking first at the more technical side of West Coast agriculture it is best to compare it with the agriculture of other countries. It is little use to be content to judge it merely by present-day English farming: it is much more useful to compare West Coast agriculture with earlier English farming, and still better with the peasant proprietorship farming system of North Western Europe, especially Denmark. In many ways there is a more suitable analogy in the native peasant farming of India about which there is fortunately much information available. All these comparisons only become really valuable

when they are all regarded in true perspective through the vista of agricultural history.

On the more human side of agriculture we must admit that most of us are too familiar with agriculture to realise what a vital industry it really is. The invention of agriculture was the beginning of civilisation, and farming has lain at the base of civilisation ever since : a moment's thought will show that it will continue to be the one really essential industry until the day comes when we can manufacture food more cheaply than we can grow it. Imagine the vast size of the basic industry of civilisation ! Even in twentieth-century England it is still the largest industry of all : the landworkers outnumber the huge armies of miners.

It needs the stimulus of a primitive country, where we meet strange peoples and glimpse new outlooks, to set us thinking again about the broader philosophy of agriculture. What is its precise nature and what does it include ? The more one considers it, the more it reminds one of a dish described darkly on the menu of a Chinese restaurant as "Chop-suey, with Many Things mixed together". Obviously agriculture is a medley : there is the science or art of cultivating the ground, and, in these days especially there is certainly an economic spice : there is also that humanistic social ingredient which we are inclined to overlook in Europe now, though it was the most troublous component a century and a half ago. We shall savour the chop-suey of West Coast agriculture more knowingly if we realise that the economic spice is more often an economy of bread for living rather than of money for spending, and that the social ingredient is especially important and will repay study. In fact, as one gets to know the social anthropology of the West Coast peoples, one often wonders whether their ideas may not sometimes be wiser than ours.

West Coast agriculture is of more than merely local interest because it presents an opportunity for an alternative solution of the problem of how tropical countries are to be exploited or developed. Hitherto it has been usual for the European capitalist or 'planter' to obtain large estates and proceed to develop the country by farming the plantations on whatever system they considered best by giving direct orders to the native labour gangs. This method of agricultural development

is not so suitable or so practicable on the West Coast, more especially since a new experiment in government is being made. By a system of 'indirect' or 'local self government' the natives are not ruled by Europeans in the usual direct way, but they are governed as far as possible 'indirectly' by giving advice and guidance to the local chiefs who are already the natural representatives.

This policy obviously has repercussions on agriculture and will mould its development. On the West Coast it will not be possible for the planter to direct the agriculture and introduce new farming methods. It seems clear that specially suited means of encouraging agricultural progress will be needed and that an 'indirect' type of agricultural progress will have to be devised to accord with, and support, the striking success of 'indirect' methods in the political field. Some suggested methods of developing efficient 'indirect agriculture' are discussed in the later chapters.

Since the chief lines of this book were planned, the world-wide economic crisis has arrived and has clearly shown up one of the strong points of peasant farming which has not been emphasised in this study, that is its great resistance to adverse conditions. The peasant-farming countries still remain stable and generally free from actual want. The author has since his residence in West Africa, had five years' experience of Egyptian farming, which is predominantly an agriculture of small holders, and he sees no reason to modify the chief conclusions drawn from the study of West Coast agriculture.

The author wishes to thank many friends, both on the West Coast and in England, Denmark and Egypt, for invaluable help and useful discussion of agricultural and anthropological matters. He is particularly indebted to the Colonial Office, whose sympathetic interest made it possible to undertake investigations in England and Denmark on education and co-operation as they affect agriculture. He especially wishes to thank his wife for very much practical help and encouragement.

By a curious chance this happens to be written on what is probably the oldest agricultural festival in the world.

MAADI,
CAIRO
Shem el Nessim, 1934.

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THE EARTH GODDESS

CHAPTER I

ALA, THE EARTH GODDESS: AND THE NATURE OF AGRICULTURE

For man's character has been moulded by his everyday work, and by the material resources which he thereby procures more than by any other influence unless it be that of his religious ideals; and the two great forming agencies of the world's history have been the religious and the economic.

ALFRED MARSHALL. "Principles of Economics."

WHEN the civilised world first heard of Africa she was full of wonder and mystery, and ever since then something new and strange is always being told of her. The Greeks knew enough of the ancient monuments of Egypt to catch more than a hint of an incredibly remote civilisation: the great pyramids of Gíza and the Pharos at Alexandria were two of the Seven Wonders of the world, and the unique mystery of the Nile, which flowed out of endless deserts and grew to her fulness in summer, unlike all other rivers, was a puzzle that exercised the ingenuity of the philosophers for centuries. The Romans came into contact with North Africa and learnt of the country of the black men beyond the illimitable desert, and later on were terrified by the "huge earth-shaking beasts" that were brought across to fight them. Hanno of Carthage left strange accounts of his voyages in unknown seas far beyond the Pillars of Hercules and the Isles of the Blest, where he saw hairy men like beasts and came at last to the great fiery "Chariot of the Gods". Travellers in all ages kept adding to such marvels until careful exploration began two generations ago and startled the civilised world even more by proving that so many of these fanciful, half mythical travellers' tales were true in sober fact after all. Now the great rivers of Africa have been traced to their sources at last, her mountains have been climbed, her vast lakes have been charted, her peoples and tribes have been

numbered. Africa is being covered with a network of railways and roads; she has been motored across her length and breadth, and even encircled by air. Yet in spite of it all she still holds much of her old romance. The wonder nowadays, however, is not so much in her mountains, rivers and lakes, or even in her wild beasts and birds, but in her great resources of land and forest and the potentialities of her people.

All this is true of West Africa, and especially of that part of it with which we are concerned, called the West Coast. The name is an old one that dates back to the time when Europeans had only coastal trading or slaving relations with West Africa, and now that this is no longer the case, it may seem ridiculous that men who may be stationed a hundred miles from the actual coast and never see the sea from one year's end to another, should still say they are on the West Coast (and call themselves "Coasters"), instead of simply calling it West Africa. But there is good reason for still using this old name, because West Africa itself is naturally cleft into two quite different regions that have no proper distinctive names. There is a broad northern hinterland of open grass land, merging into the barren Sahara, whose population has been so strongly influenced and organised by Islam as to give the inhabitants almost an Eastern outlook and make the country as a whole form part of the Western Sudan. Then there is a narrower southern coastal region of heavy rainfall which bears high bush or forest and is populated by many different tribes that are all much more characteristically African in their social and religious outlook. This southern part of West Africa is the real West Coast: it is a strip of coast land about a hundred and fifty miles broad stretching from the western seaboard of Sierra Leone to the eastern boundary of the Cameroons, and so includes Sierra Leone, Liberia and the Ivory Coast, the Colony of the Gold Coast and Ashanti, the southern halves of Togoland and Dahomey, and Southern Nigeria, and although this is a large area, plants, animals and people vary so little from place to place, and that in degree rather than kind, that we may treat this West Coast as one country from an agricultural point of view.

From the earliest days the West Coast fully shared in the mystery and wonder of Africa, but in time it came to have its

own very particular mystery, so that now whenever one thinks of the West Coast one remembers tales of its dark superstitions and strange religions. Few nowadays can have missed the fascination of the supernatural that is so strongly linked with the West Coast: the very word ju-ju was coined there by early French explorers, who thought the idols they saw everywhere were some kind of doll, while modern fiction is full of the looming mystery of the whispering bush, and of uncanny forces emanating from horrid fetishes or tyrannical ju-jus. Of course, these imaginary tales had some foundation in fact, and the popular idea of the West Coast as steeped in dark superstitions is correct to the extent that the African has a genius for religion and that the West African in particular stands out as saturated with it, but extravagances of fiction have gone further than this and have unfortunately confused and obscured what is real. For West Coast beliefs, like all other religions, have more than just a passing sensational or curious interest, because, as Marshall points out, religion is one of the most powerful of the "forming agencies of the world's history", and on the West Coast, more than most places, religious beliefs pervade and influence all kinds of everyday work, of which agriculture is the chief. Indeed, it is impossible to understand West Coast agriculture fully in its present state without some appreciation of the religious beliefs that are associated with it, for the West Africans do not look upon agriculture from the same standpoint as more civilised people, and it is well worth while spending a little time upon these beliefs to bring out this difference in the points of view.

As soon as one begins to study West Coast religions, one finds again that truth is stranger than fiction. It is, for instance, grotesque to learn that the vast miseries of the slave trade largely had their origin in the religious zeal of that genius of Portuguese explorers, saintly Henry the Navigator, who wanted to evangelise the heathen 'Moors' whom his captains had captured on the West Coast, and so obtained a Papal Bull giving him a trading monopoly. Then it is hard to believe that four hundred years ago, in the very depths of the dark continent, there was a Christian kingdom of the Kongo, with a baptised king and queen and a negro Catholic bishop educated at Lisbon. Perhaps these examples seem too vague and remote to be

convincing matters of fact, but there is the recent instance in 'Prophet' Harris, a modern Prester John, an extraordinary black man who suddenly appeared a few years ago in the Ivory Coast bush and induced thousands of natives to burn the fetishes which he denounced, and to be baptised. One may read of how the fifty or hundred thousand of his converts in he course of a few years built churches and furnished them with Bibles that none could read, of how the size of his movement made the French administrators uneasy and caused his deportation: one cannot wonder that for many years the 'prophet' himself was almost a myth, since he was rarely seen by white men and travelled quickly and elusively all over the country, dressed picturesquely, it was said, in a long, white robe and turban and carrying in his hands a rude wooden cross, a Bible, a bowl of water and a calabash.

These religious changes that seem so strange at first are not really so unexpected when one begins to study them. The changes that were brought about by the Portuguese missionaries or by Prophet Harris seem to have been quite genuine in the sense that there was no thought of material gain, and the quieter and more extensive conversion of West Africans to Islam or to Christianity that is at present altering the whole outlook of the West Coast is equally sincere. The West African does not embrace these new religions because his own beliefs are weak, for the negro is deeply religious, but the appeal of these new religions is really derived from the most deeply seated beliefs in their own indigenous religions, and just as St. Paul appealed to the Athenians through their "unknown God" so these new religions appeal to the fundamental and barely conscious monotheism that underlies all West Coast religions: they are not so much new to them as more perfect.

A common belief in a Supreme Being among such backward peoples as the West Africans is the first instance of the unexpected when one begins to study the realities in West Coast religions, but it is still more astonishing to find that it is not at all a modern discovery, but one that has been overlooked for two centuries. There is a grand passage written by the Dutchman, Nyandael,[1] which reads:

[1]Bosman, *Description of Guinea*, 1705.

"It is really the more to be lamented that the negroes idolise such worthless Nothings by reason that several amongst them have no very unjust idea of the Deity, for they ascribe to God the attributes of Omnipresence, Omniscience, and Invisibility, besides which they believe that He governs all things by Providence. By reason God is invisible, they say it would be absurd to make any Corporeal Representation of Him . . . wherefore they have such multitudes of Images of their Idol gods which they take to be subordinate Deities to the Supreme God . . . and only believe these are mediators betwixt God and men, which they take to be their Idols."

And in the present-day religions of the West Coast one finds, curiously enough, that the more primitive tribes have the purer ethic associated with monotheism, which is progressively impoverished in more advanced tribes by an expanding pantheon and an increasing ceremonial, culminating perhaps in the complex 'Templum' of the Yorubas. But common to all West Coast peoples is this belief in a Supreme Being who, however, is usually neither evoked nor directly worshipped ; he is Obassi of the Nigerian Semi-Bantu, "the god who lives above the earth" ; Chineke, "the creator" of Ibo ; Olorun, "the one who possesses the sky" of the Yorubas ; Kuru, of the Sierra Leone natives, and Nyame, "Supreme Being upon whom men lean and do not fall" in Ashanti.

If one probes a little deeper beneath West Coast religions one soon comes upon another general fact which has a very direct bearing upon the studies which follow. There is an almost equally widespread and important complementary cult of a beneficent Earth Goddess who by contrast is less distant, more benevolent, more lovable and very approachable. She is Asase Ya, "Old Mother Earth" of Ashanti ; Isong of the Ibibio, sometimes known as Abassi Isu Ma, i.e. ' "the Goddess of the Face of Love"—or, since by a beautiful connection of thought the word for love and motherhood is the same, the name may also be translated "the Face of the Mother" ';[1] among the Ibo she is known as Ala, Ale or Ani.[2] The Supreme Sky God and the beneficent Earth Goddess are often regarded in such a way as

[1] Talbot, D. Amaury, *Woman's Mysteries of a Primitive People* (1915), p. 12.

[2] Among the neighbouring Jukun people, who live mostly just outside the West Coast strip in Nigeria, the Earth Goddess occupies an important position and is called Ama, see Meek, C. K., *A Sudanese Kingdom* (1931). In the Yoruba 'Templum' it is difficult to distinguish an Earth Deity, but there are several local fertility cults.

to involve a largely unconscious picturing of the wedding of Earth and Sky; sometimes the sexes are interchanged,[1] but usually the Sky God is considered to represent the male fertilising agency, while the Earth Goddess is the Great Mother, or giver of birth. Of their worship Amaury Talbot writes:[2]

"Reverence and 'numinous' awe—the real Religion—would appear to be the main ingredients in the worship of the Supreme God, in the words of Rudolph Otto, the 'mysterium tremendum', but love certainly enters into that of the Great Mother, the Earth Goddess and 'Lady of Wild Creatures', πότνια θηρῶν, from whom most material blessings are thought to come."

And in particular he writes of the Ibo Earth Goddess, Ala:

"She is the great Mother Goddess, the spirit of fertility, the nearest and dearest of all the deities. Some of her statues in the Ibo Mbari temples . . . with a child in her arms or on her knees and a halo round her head and with the crescent moon often depicted on or near her, are reminiscent of some Italian Madonnas and still more of Ast or Isis with her son Horus."

These two complementary beliefs in a distant Supreme Being and a benevolent Earth Goddess are the outstanding facts in the religion of the West Coast peoples, and it behoves us to resist the tendency to think that, while they may be interesting enough to ethnologist or anthropologist, they can have little bearing on practical life, for religion must always be one of the greatest of the forming agencies that shape history. Those who are inclined to doubt the effect of religion in practical everyday life should remember the effects of Hinduism in the village life of India, with its results in the form of overbearing hordes of wretched half-starved cattle that no one may kill, but that eat up all prosperity and drive the people to misery, hunger and dirt. In the same way the deeply-seated beliefs of the West Africans must affect them fundamentally, and if the West African is to be understood they must be treated with sympathy. Starting from these beliefs, Amaury Talbot has been led to study the often repulsive fertility cults of Nigeria which he dignifies

[1] In the case of Sierra Leone the earth deity is male; Kumba "a vegetation god of the type of Adonis". Northcote Thomas, *Anthropological Report on Sierra Leone*, Pt. I, Chap. iv.

[2] Talbot, P. Amaury, *The Peoples of Southern Nigeria* (1926), Vol. II, p. 18.

as "the bedrock of religious ideas" through which "the innermost workings of primitive minds may, in a measure, be reached at last".[1] He shows that the psychological affect of fertility, particularly well shown in a native's longing for offspring, is immensely strong; "For such an end no crime is too cruel; no magic rite too dark or revolting", and he cites cases which amply bear out his statement.

This second great deity of the West Coast, the Earth Goddess, together with very numerous local fertility cults, is exceptionally interesting. What is the meaning of this general belief in a lovable, eminently approachable, helpfully co-operating Earth Mother strongly associated with fertility of plant, animal and man? We should certainly be on safe ground in presuming that the Earth Goddess is at least the personification of fertility in its widest possible sense of "the earth bringing forth her increase": that is to say, the Earth Goddess is a deification of those elusive, evanescent, inscrutable life-forces of growth and reproduction. One may also suppose that she represents a deified centre of vitalistic forces whose kindly co-operation must be assured before man, or animal, or plant can achieve that fertility so obviously and deeply desired. Then the worship of the kindly disposed Earth Goddess is a realisation of the essential co-operation between divine vital force and human labour, and that just as a European tills his fields or raises his stock in the light of tradition or with the guidance of an impersonal science, so the West African labours on his land and seeks to enlist the essential vitalistic co-operation of the benevolent Earth Goddess. In that case the Earth Goddess is a typically mystical and deeply religious idea which is translatable in terms of European thought as the native equivalent of agricultural science.

At first sight such a view seems rather fantastic, but a closer study will tend to confirm it. For instance, take the statement[2] "The great Goddess, whose body is the earth, is mistress of the myriads of lesser spirits, who live on this world and whose duty it is to look after, and help, mankind and animals and superintend the course of nature. Each of them is, however, a part

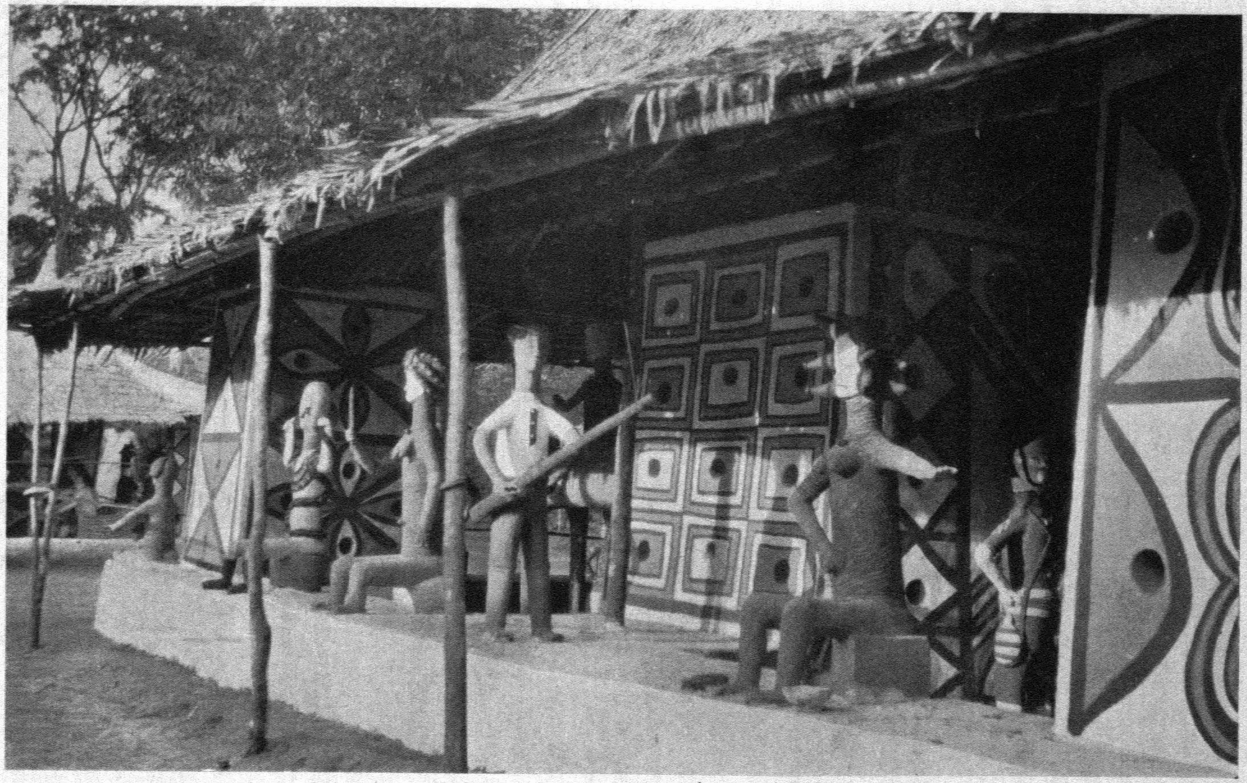
[1] Talbot, P. Amaury, *Some Nigerian Fertility Cults* (1927).

[2] Talbot, P. Amaury, *The Peoples of Southern Nigeria.* (1926.) Vol. II, p. 44.

of Ale, an emanation from her, but evolving on its own lines." This must refer to the great variety of natural phenomena that act and re-act upon vital forces and result in the sum total which we call fertility, a mystery that lies at the very heart of agricultural science. It may seem far-fetched to suggest that the native idea of agriculture is a permanent state of mind which only invades the minds of Europeans very dimly and subconsciously for a few fleeting moments at a Harvest Festival, but is it not after all most probable? There is a divergence of thought: the European looks upon living things from a mechanistic point of view, the West African looks upon them vitalistically, from a Harvest Festival point of view.

It is one of the most difficult things in the world to decide exactly what weight should be attached to native ideas of this sort. They are frequently gravely under-valued, as in the case of the Golden Stool of Ashanti which white men supposed to be an emblem of aggressive material kingship, instead of a peaceful spiritual emblem of the soul of the whole people, an error which resulted in unnecessary bloodshed and unrest for many years in Ashanti. Then it is equally easy to be carried away by the glamour and fascination of native ideas and read much more into them than they really contain, and in this case we have to allow for the fact that West Coast religions are decaying and being replaced by Islam or Christianity. But the West Africans cannot have a perfectly vacant mind about living things, and there can be no doubt that the inertia of these old ideas about the Earth Goddess will continue when native religions have gone and the ceremonial has long been forgotten. Native ideas about living things are changing and will change, but for the present the Earth Goddess is the starting-point, and we must try to point out some practical effects of this belief later on, more especially on the question of the ownership of land; but for the present we must try to grasp the general attitude of mind that results from it in farming, so causing the West African farmer to carry out the traditional farming operations he has been used to for centuries and to trust almost entirely to the benevolence of the Earth Goddess for increase and multiplication of his crops.

Such a view of agriculture that leans so heavily on Providence and leaves so little to strength of will or ingenuity of mind



By courtesy of A. W. Banfield

IBO MBARI TEMPLES.

Periodically temples are erected in S.E. Nigeria, particularly for the worship of Ala and the forces of fertility, when a great festival is held and much licence prevails : here there were six temples containing 175 clay figures, fantastically coloured, which took the builder three years to complete. The photograph shows various styles of women's hair dressing in one temple, and part of another temple.

seems so saturated with the mystical as to tempt a civilised man to condemn it out of hand as absurdly impracticable and hopeless when placed beside civilised conceptions of agriculture. Yet a great deal of the practice that results from this belief in an Earth Goddess seems sound and fitting to West Coast conditions, so let us not pass too hasty a judgment upon it. After all, is twentieth-century English agriculture the final test, the only and highest standard of comparison? An impartial observer of West Coast and English agriculture might easily find much to criticise in both. A Danish agriculturalist, for instance, might point out with some justification that English agriculture is unduly obsessed by what passes for the 'economic' aspect, but is really cash profit-making for the few fortunate individuals who own or rent the farm, and not profit-making for all those engaged in agriculture, or the industry as a whole. He might point to a contrast and explain that if a British farmer has a farm that does not 'pay', he abandons and sells it if he can and buys another, whereas the Dane at once determines to make it pay by altering his farming methods. He might well say that the English are now so thoroughly urbanised that they cannot see farm problems clearly, but only see the fields blurred by the fogs and hazes of industrialism, and as a result are always trying to apply their industrial principles to agriculture. He might picture our ideal of agriculture as an affair of vast farms over whose gigantic fields huge machines are pulled by engines of immense power and incredible efficiency. He might well say that we are always dwelling upon the decrease in costs of production, but that it rarely occurs to us that the total amount of food produced is less than before, and that we refuse to see that social injustice may have been done: and he might unanswerably point out that the labour we have so carefully saved in the fields is being merely conserved in the unemployed of the towns.

It is not so easy to compare agriculture fairly in one part of the world with another, or one time with another. As Lord Ernle has pointed out:[1]

"Accurate comparison between the conditions of the rural population in the thirteenth and twentieth centuries seems impossible.

[1] Lord Ernle, *English Farming, Past and Present*, 1927, p. 28.

Calculations based on the prices of commodities, involving, as they must, the translation of the purchasing power of mediæval money into its modern equivalent, are necessarily guess-work. They are also to a great extent irrelevant, for few of the necessaries of life were ever bought by the cultivators of the soil, and whether the corn that they raised was fetching 3s. or 6s. the quarter in a distant market made little difference to the inhabitants of villages. They grew it for their own consumption."

And so anybody who has tried to estimate the costs of producing native crops, or the amount of labour spent on them, must always feel that there is a great deal of unreality about his conclusions, because considerations that appear to be purely economic in civilised countries may at present be almost irrelevant in primitive Africa. Why should we always choose to compare West Coast agriculture with twentieth-century English agriculture, with its very special economic pre-occupations of the moment, when we want to decide what is good and what is bad on the West Coast? Why not equally well use twentieth-century Danish agriculture, with its social pre-occupations, as a guide, or indeed any other set type of agriculture? They all have their peculiarities and seem partly right and partly wrong. Let us rather allow the Earth Goddess to suggest that we approach West Coast agriculture with a broader sympathy, prepared to take a wider view of agriculture than the particular conventional national view that we may have been brought up to imagine is the only one. Indeed, it seems that before we can reconcile the mystical agricultural ideals of the West African with the narrowly individual economic view of the English agriculturalist we must have a more absolute, more general standard to guide us. We shall have to decide what we are going to mean and include when we speak of agriculture, and for this we must try to review its basic elements and grasp the essential nature of agriculture.

Without entering into a long discussion of definitions, we may begin by agreeing to label agriculture as an art, a practised knowledge or applied science. The science of agriculture itself is sometimes regarded as a collection of a great number of natural and mechanical sciences, a conglomeration of those parts of botany, zoology, chemistry, physics or mechanics that

are in any way related to plant and animal life, but agricultural science really involves more than this. It would be truer to credit it with a much more definite aim, and to picture it as co-ordinating all the separate sciences with which it has to deal, and endeavouring to discover how all these facts bear upon the centre, which in an ultimate analysis is the green plant growing in the soil.

So far the matter is fairly simple and scarcely open to dispute, but as soon as one thinks of agricultural science actually applied one becomes distracted with the vast number of different aspects that suggest themselves, and hopelessly bewildered with the great variety of aims and ideals that different people insist upon. Let us then first try to imagine agricultural science applied by a man who need not consider expense, or time, or morals, but is just left free and untramelled to devote himself to this applied science, or art purely for its own sake.

If such a man loved the beautiful he would grow beautiful flowers and finely shaped trees, grouping them into a perfect garden ; if he appreciated the rare he would stock an orchid house and try to breed new varieties ; if the curious attracted him he might spend his life growing dwarf trees like the Japanese, or satisfy his taste for the bizarre by grafting together many plants into a regular "greengrocer tree". If he were something of a *gourmet* he might bend all his energy towards producing the most succulent apple, or the largest vegetable marrow, or the best-flavoured potato : if he were dynamically minded he would probably try to grow plants at top speed in a greenhouse with a raised temperature, in soil manured to the last degree, and an increased concentration of active gases in the atmosphere ; he might irradiate his plants with an immense artificial sun and perhaps subject them to an electric discharge and so quicken up all the vital processes that one might almost see the plants bursting into flower and fruit. Such genuine artists do break out in the queerest directions and in the most unlikely places : most gardeners and allotment holders are examples, and Chesterton[1] makes great play with the case of the dwellers in the East End of London who objected to giving up their insanitary backyards and living in clean flats because

[1] In *The Outline of Sanity*.

this would have interfered with their hobbies as bird and rabbit fanciers, and everyone knows of other instances. So if a man were free to practise agricultural science, there is no end to the many startling forms his art might take ; so much so that there is no name to give to such varied artists whose medium is living things, but one might collectively describe them as a sort of gardeners, or biological artists.

But hardly anybody has such complete liberty : the ordinary man is pre-occupied with making a livelihood : and all men whether ordinary or extraordinary, ultimately depend on agriculture for their very lives, and thus it is that agriculture differs from other arts because it is so obviously and generally necessary. Man may be able to exist after a fashion without his painting, or his music, or his literature, but he cannot do without his food plants now. It has not always been the case, for when everyone hunted animals or gathered wild fruits, agriculture was not generally necessary, and no doubt the ancient hunters sitting over their fire talked about the efforts of the first agriculturalist with much the same pitying tolerance that we are now apt to bestow upon the enthusiastic orchid grower pottering about in his hot-house. There has been much discussion as to whether agriculture originated in a stupendous mental effort, or whether it was discovered semi-accidentally, but in any case it would not be long before it was seen to have practical possibilities, and the earliest biological artists, the real amateurs who grew plants because they wanted to see what would happen, or simply because they liked it and took no account of labour spent in pursuing their art, were quickly followed by the commercial artists, the professional agriculturalists as it were, who grew plants because they wanted food and grudged every ounce of labour that was not strictly necessary to get it. Adam, who was placed in a garden "to keep and dress it", gave place to Cain, "the tiller of the soil", and the implied difference is vast : it is the unnecessary striving, the patient, loving experimentation, the inspiration of the true artist on the one hand, and the forced labour, the compelled "sweat of the brow", the more limited practical aim of the artisan, on the other.

So it would happen that almost as soon as agriculture was discovered it would be appreciated as an eminently useful art

and very soon after as a vitally necessary art, and then, when the eager pursuit of art for its own sake was transformed by sheer necessity into needful work, in that very moment the element of labour entered into agriculture and made it economic. Economic, that is, in the broadest sense. Primitive man might certainly appear to waste a great deal of energy in the worship and ceremonial of his vegetation gods, he might indeed seem to sacrifice valuable animals needlessly, even human sacrifices such as the Nigerian Ibo used until recently to offer to their yam spirit, but doubtless he thought that these things were far more essential for a good crop than we consider it necessary nowadays to manure the land. According to his beliefs—his primitive agricultural knowledge—he would do no more than he considered proper for his crops to yield their increase: in the material realm, and sometimes also in the spiritual, the ordinary agriculturalist has been economical almost from the very beginning.

This economic factor has gradually become more obvious as time has passed: even when farming was only practised for subsistence men always strove to obtain larger, quicker, and better crops without a corresponding increase in the work needed to raise them: and as the farming communities began to live more peaceful lives, so that barter and trade flourished, agricultural products furnished not only subsistence but also wealth to be used for raising the standard of living, and the exact value of crops became easier to calculate and appreciate. During the last two centuries especially, the importance of the economic factor in agriculture has been accentuated by the remarkable development of all kinds of transport, which has drawn in even the most distant countries as competitors and has always tended to make the cheapest producer of a crop, no matter how far away he is, set the level of production for the whole world. The economic factor increases in proportion with the necessity of practising agriculture, and it takes a greater and greater part in shaping its methods. It has also directed agricultural science towards some of its aims, but the practical aim of sound agricultural science is not so much an attempt to solve the quickly changing relative economic problems of the moment as a calm pursuit of a more absolute efficiency in farming, a striving to make the greatest possible

use of natural forces and resources in building up produce without prejudice to their future usefulness. We can see the best example of this aim in dealing with that natural resource which can most easily be exhausted—the soil. Agricultural science now looks upon the soil as capital from which to extract the greatest possible interest year by year without harming it : its material aim is to reap the best possible crops off a piece of land continuously for an indefinite period, in fact to aggrandise a perfect usufruct for mankind by every possible means.

But the applied science of growing living things, narrowed down by economic necessity into certain channels is still an incomplete view of agriculture, even when it first began, and we must take account of a third factor in our review of the nature of agriculture. It would be unnatural to picture a separate individual deciding to cultivate the land, as so far we have rather assumed he did, because man is gregarious and can do nothing without rubbing shoulders with his fellows and perhaps interfering with them, and this again modifies the whole situation. In the very earliest days of farming the individual was only one of a band which hunted, or herded cattle, or warred upon its neighbours, and in the time of these ancient hunters the herd instinct in man was particularly strong because of the obvious necessity of clinging together in sufficient numbers to ensure mutual protection without at the same time making the country impossible for the game on which their lives depended. Human minds must then have been saturated and obsessed with the importance of the community and the insignificance of the individual : the individual could not escape from the community, and all his actions would be merely as one of a company. Under these circumstances it would be irrelevant and futile to have tried to estimate the value of each person's services to the community because they all had the same motive, and it would be very unlikely to occur to anyone to reward individual effort proportionately, either in the absorbing vigilance of the chase, or the excitement of the kill, or least of all at the joyful feast, so it is the most natural thing in the world that these hunters should have shared their bag equally and kept everyone contented. Their way of living would make these hunters men of spirit, quick, enterprising, and daring rather than industrious, more like athletes than labourers :

their chiefs would have been those who excelled in these personal qualities and they would have been rewarded in the spiritual coinage of allegiance, respect and renown rather than in material wealth.

It was to small nomadic bands of this sort that agriculture presented itself as a totally new factor in their lives. It was extremely disturbing to social unity, for it meant changing the whole way of living, a change which one may picture as being far more difficult than settling down to a humdrum civil life in an exciting war-time atmosphere. One may easily imagine the conflict that must have gone on within the community between the younger men who did not want to give up their gloriously free wandering life, and the older and more dependent, especially the women, who welcomed the chance of a safer and surer life in the fields. One can visualise the dilemma of the chiefs, too, for on the one hand they would glimpse some of the advantages of agriculture and become gradually conscious of its ever-increasing necessity, and on the other hand they would see the single whole-hearted group mind of the community being gradually split up into separate individual minds with differing motives and wills, and above all they would see the fundamental necessity of social peace for their very existence as communities and to enable agriculture to flourish.

At first the chiefs would resist agriculture or try to compromise like the Germans who told Cæsar how they allotted land to the people, "and in the following year they compel them to move to another place. They give many reasons for this arrangement. They fear that the habit of settlement may grow on them and change their inclination for fighting into a love of agriculture, and they may become eager to acquire large estates, that the most powerful may turn the weaker out of their holdings, and that they may build houses too carefully to avoid cold and heat." Then perhaps the chiefs would try another compromise by farming communally on some system of shifting cultivation such as the "wild field-grass" method practised by the Celts. But it would not be long before this would create dissension, because in the slower life of the farmer there would be ample leisure to judge the relative value of an individual's efforts, and they would soon realise that the fruits of the earth were mostly earned by the labour of cultivation,

while the beasts of the field had been more obviously the chance gift of the gods, and the more industrious farmers would resent sharing the products of their toil with idler neighbours. The idea of the reward of individual effort would grow, too, when men began to live in separate houses which they made or marred with their own hands, and lastly it would be possible to accumulate material wealth in the new settled life.

The social organisation of hunters was democratic, and it is therefore not surprising that the communities should have endeavoured to continue what they had found to be the best way of living when they settled down to farming, and so they shared whatever natural resources there were in the way of timber, or water, or pasture; but when it became clear that it would not be fair to divide cultivated crops in the same way as the plunder of the hunt or the spoils of war, and that tillage land must consequently be held in severalty, they tried to preserve the contentment of the people by ensuring that every man should at least have an equal opportunity, that is an equal right of being able to grow tillage crops, by distributing the land equally amongst them. This distinction of communal natural resources and individually earned fruits of the earth is very old and widespread. Thus even on the West Coast of Africa, John Hawkins says of the tribes living near Cape Verde in 1564:

". . . . they take order in gathering of the fruites in the season of the yeere, and also of Palmito wine which is gathered . . . and this devided part and portion-like to every man by the judgement of the Captaine and Elders, every man holdeth himself contented: and this surely I judge to be a very good order: for otherwise, whereas scarsitie of Palmito is, every man would have the same, which might breed great strife but of such things, as every man doeth plant for himselfe, the sower thereof reapeth it to his own use, so that nothing is common, but that which is unset by mans hands."

The exact standing of the chief in these primitive agricultural communities deserves careful notice: he was still in essence a hunting leader, although he guided the community under transformed conditions: that is to say he was an ordinary individual with ordinary land rights, but by virtue of innate character he was also a headman, a leader, or magistrate, the trustee in-

vested by the people with the jurisdiction of tribal laws and lands, and the very antithesis of the owner, or temporal lord of the land: his duty was to distribute the monopoly of the use of the land on this cardinal principle of equality of opportunity, which meant equal land rights irrespective of a man's position in the tribe. This conception of the chief as a leader and trustee of tribal lands is also very widely dispersed, and one may observe that it lies at the base of present systems of land tenure all over Africa to-day, just as it did with the Germans in Cæsar's time, but it is particularly obvious and conscious on the West Coast.

Over most of Europe, and indeed with the Aryan group of peoples generally, the solution of the social problem of agriculture that was finally arrived at was the system of strip cultivation, "champion farming", or the "arable mark", whose apparent clumsiness impressed itself upon Cæsar in Germany, until the chiefs told him that "they were afraid the love of money would grow, and from this would spring divisions and quarrels. They wished to keep the people contented and therefore quiet, and this would be done when each man saw his property made equal to that of the most powerful". We, too, are apt to look upon the strip cultivation merely as an effete crudity because we lose sight of the fundamental social problem it was designed to solve; its very awkwardness is but man's stumbling after justice, and its extreme complexity is a clear proof of the strength of purpose that animated him. The desire for equal opportunity and fair treatment is one of the most powerful and unquenchable in human nature, and it cannot remain unsatisfied for long. The early agriculturalists realised this fully, for they had the memory of the contented *cameraderie* of the hunt fresh in their minds, and they strove with all their might to preserve it under altered conditions, just as in our own day men have attempted to cherish the war-time brotherhood of arms in the more difficult days of peace by forming Ex-Service Clubs, most consciously of all, perhaps, in the modern "Toc. H." movement. One should rather look upon the strip field method as one of the noblest of men's achievements, for they so obtained material progress without forgetting social justice; they greeted a material advance with a spiritual advance; they boldly faced a new agency of civilisation and mastered it, for it is beyond

doubt that the strip method of cultivation satisfied the requirements of agriculture for centuries.

It would be idle to pretend that this simple, rather idyllic story can be a faithful and complete account of all that happened when mankind began to occupy himself with farming. The inequalities in mankind and the different experiences of peoples have naturally complicated everything. The younger and more adventurous among the newly settled communities would undoubtedly feel themselves bound down by the intolerable tie of a settled life, and they would probably break away and try to live by means more suited to men of their mettle: surrounding tribes might cling to their pastoral nomadic life and exasperate the farming communities with their freely roaming livestock. Neighbouring tribes of more daring temper would soon realise the tempting bait provided by rich farming settlements and would soon become tribes of professional warriors who by their captives would initiate a social hierarchy beginning with slaves. So from the earliest days the situation was complicated by the opposing aims of the hunter or herdsman, the farmer and the warrior, and from the resultant history one can only try to separate out the lines of evolution of nomadic pasturing, agriculture, and war. But communities of farmers of equal status led by chiefs or elders with the spiritual mandate of trusteeship, rather than material autocratic domination, occur so frequently in the early history of mankind in such widely separated parts of the world that they seem to have been born as naturally as feudalism so often sprang from war and conquest.

In agriculture, then, one recognises an occupation which is pursued partly as a science with the pure aim of understanding the growing plant and animal and all that is connected with them, and partly as an economy to meet man's material needs by striving to make the natural process of food manufacture as efficient as possible. There is the human application of this science as an art that may take an infinity of forms, but is usually forced by sheer necessity into the practice of agriculture as a means of getting food with the least possible cost of labour or money: and finally there is the limiting factor that in all this men must be able to live next to each other in peace, which implies that individual methods must not be allowed to do

violence to any other man's right to fair treatment and even justice, and so destroy the contentment and peace of the whole people. Here, then, is agriculture practised as a fundamentally necessary art with its scientific, economic and social aspects and limitations. It is not possible to arrange these different aspects of agriculture in the order of their importance, because they are really essential components of a whole, so that each must enter to some extent into any kind of agricultural practice, although sometimes the social aspect, and sometimes the science, and sometimes economics seems to loom the largest.

In thinking of the nature of agriculture, everyone will agree that they can see in it a knowledge or science that can only be applied with due regard to economic demands and limitations, and we are all quite ready to smile tolerantly at the scientist, who invents wonderful methods of increasing the yields of crops and ignores their economic aspect, as an unpractical sort of farmer. But very many people cannot convince themselves that the social aspect is equally important: they will, of course, admit that there is a social side of agriculture, but they consider that this lies outside the province of the agriculturalist and that he need be no more concerned with this than the shipbuilder need study the social position of the men in his yards. Later on, when we come to discuss the question of scale in agriculture, we shall find that the social position of farmers affects the whole practice of agriculture, and before an agriculturalist can fix and criticise a type of a working practice of agriculture he must necessarily know not only the scientific methods and the economic considerations that modify them, but also the social advantages or restrictions under which this agriculture can be carried on. The fact is that farming differs greatly from any other industry: first, it is vitally necessary, and as long as "all flesh is grass" it must be carried on at all costs: secondly, it is universally necessary, and must therefore occupy a large number of people: and for these two reasons it occupies a very special place and is accorded special treatment in separate ministries of government all over the world. But, thirdly, the practice of agriculture depends profoundly upon how a natural monopoly, land, is divided up among the people, and thereby agriculture unavoidably creates a great social problem whose solution affects the actual practice

of agriculture. The social problem and the practice of agriculture act and re-act together; they are interlocked, and can only be separated in abstract theory: they grip each other so closely in actual practice that they can only be treated together.

The social aspect of agriculture is likely to be underrated by the agriculturalist who only looks at English agriculture because the English have always avoided sudden spectacular effects by a national genius for compromise. There has been no catastrophic bloody agrarian revolution like those in Continental countries, so one is apt to forget the long-drawn miseries caused by the Statute of Merton or the Statute of Labourers, or the suffering that accompanied the enclosures of the sixteenth century, or the Poor Law troubles that followed eighteenth century enclosures. Then again, the unfortunate English agriculturalist was not in such a desperate plight as many other Continental farmers, because if the land failed him he could often go into trade or industry, whereas in many purely agricultural countries on the Continent there was no such alternative for a long time, and now all an unfortunate continental farmer can do is to take the tragic step of leaving his fatherland and try to make a living in a strange country under a foreign flag. So one must give due weight to the social aspect of agriculture, more especially in countries where religious ideas, social customs and organisation, and habits of thought may all be very different to our own.

Agriculture, therefore, seems to be triple-based and to have a trinity of aspects—scientific, economic and social. And each aspect by itself is not static but dynamic, changing and growing, and it is the interaction of all three that produces an agriculture, or perhaps we ought to call it an agricultural organism, for it also develops and evolves and may flourish or die. One aspect may develop more quickly than the others and outgrow or interfere with them, and then the agricultural organism becomes abnormal, monstrous and sickly, and needs to be made whole and healthy again.

Perhaps the nature of agriculture may be compared more aptly to a musical fugue which contains three themes or strands of melody—the scientific, the social and the economic. If one listens carefully each theme can be heard and studied separately through all its history, from its simple beginning to all its

variations and developments. Yet each abstracted theme does not give good music by itself but only assumes its fullest truth and beauty when it is so wedded and woven with the other themes that they support each other and make one great continuous harmony. In the same way the triple themes in agriculture must somehow be harmonised at every moment so that the whole fugue may develop continuously and melodiously.

We can now pass on to review West Coast agriculture in the light of our conclusion as to its triple nature. The next two chapters describe separately the scientific, economic and social themes of the fugue of West Coast agriculture. In the fourth chapter it will be necessary to digress on the question of scale in agriculture, since this seems to be little understood and introduces confusion and uncertainty in our judgment.

In the fifth chapter the three themes of science, economics and sociology will be blended together into the coherent fugue of peasant agriculture which exists now on the West Coast, and this will be compared and contrasted with two other alternative agricultural fugues which might conceivably meet the needs of the West Coast better. Then having decided that the agricultural fugue of native peasant farming seems on the whole to be the best under all the circumstances, we may pass on to the second half of the book and consider how this native peasant farming might be further developed and improved by the combination of peasants for economic purposes, a more suitable education, a development of land rights and duties and the fostering of agricultural improvements generally.

CHAPTER II

AGRICULTURAL HISTORY OF THE WEST COAST: THE SCIENTIFIC AND ECONOMIC THEMES OF THE FUGUE

ALL countries have not exactly the same agriculture: their agricultures, or if we picture them dynamically and historically, their agricultural fugues, differ greatly; and each is peculiar and characteristic. This is quite natural when we consider that every agriculture is the resultant of three components which themselves vary greatly from one country to another, and we can see the cause of the differences in agricultures if we analyse the variations in each component. For instance, in English agriculture the economic theme is predominant and peculiar, the scientific theme is moderately developed and the social theme is not very carefully regarded. Danish agriculture is sharply contrasted, for it is highly developed socially, but this is so well balanced economically and scientifically that it gives one of the best agricultures in the world. Indian agriculture has a fairly well developed science and a primitive economic theme, but the social theme is so excessively emphasised that it cramps the style and harmony of the whole fugue. So in studying West Coast agriculture it is best to examine each component separately and it is most convenient to take the scientific and economic themes first by starting with the untouched primeval country and following out the progressive complications brought about by human means through the vista of history: the social theme can be best appreciated in a modern setting, and so it will be left for the next chapter.

Of course, one could only fully appreciate the scientific and economic themes by learning the whole history of the West Coast, and it would indeed make most fascinating reading whenever it comes to be written, for the casual glimpses one catches at almost any period make most attractive pictures. There is romance behind the mediæval Venetian beads one can still buy

sometimes from Hausa traders, or the Crusader armour of Northern Nigeria, while Phœnician 'aggrey beads', Portuguese manillas, or the bar iron coinage that is still current in the Kissi country of Sierra Leone serve to suggest the varied influences that have been at work for centuries. But for the present we must be content to confine our attention to what seems of direct agricultural importance and construct a simplified outline of West Coast agricultural history that will make the present state of agriculture intelligible from the scientific and economic points of view. It is simplest to consider the agricultural history as divided up into four tolerably distinctive phases, or partly overlapping periods, which correspond with the peculiar human influences at work at the time: these periods may be conveniently called the aboriginal, the Eastern, the Portuguese and the Anglo-French.

It must be admitted that the conception of an aboriginal period on the West Coast is more of an abstraction than a concrete reality if one regards it from an anthropological standpoint, but floristically it is definite enough to take as a starting point. We have to try to gain some idea of what the West Coast was like when it was little influenced by man, let us say 10,000 years ago. It would be reasonably safe to suggest that in this period the West Coast was covered with impenetrable gloomy primæval forest, or at least with dense high bush, except in a few places: it is very likely that the country was far more sparsely populated than it is now because the luxuriant equatorial forest, paradoxical as it may seem, is still one of the most difficult places on earth for man to get food, as Schweitzer[1] has recently pointed out. Before land can be cultivated and crops sown, it must be cleared of its towering vegetation, and it is probable that this labour was so stupendous that for ages there was no attempt to practise agriculture, but men lived solely on what they could chase or gather. The endemic flora was not rich in food plants: of course, there was the oil palm, which still remains the most valuable plant on the West Coast, and there were doubtless plants like millet and 'acha' or 'pindi' (*Digitaria*) which gave grain, cowpea and the wild fruits that several authors have described; there were also many plants

[1] Schweitzer, A., *On the Edge of the Primæval Forest*, 1922.

which would be largely useless to the natives themselves, but later on become important commercially, such as kola, coffee, *Funtumia* rubber and the gum copal tree, but above all 'Malaguetta Pepper" (*Amomum* spp.)—the "Grains of Paradise" which gave the name to the Grain Coast, and which later on were found to be such delectable and such precious spices that they became virtually the *raison d'être* of the Moorish, and through them the European, trade with West Africa. Neither the country, overgrown as it was by masses of vegetation, nor the endemic flora, with its predominence of perennial plants and its poverty in annual food plants (which would make the discovery of improvement by selection almost impossible) would encourage the natives to grow plants, to learn some of the secrets of their cultivation and in course of time to domesticate food plants. But even allowing for these disadvantages, it is nevertheless a little surprising to find that West Africans have not domesticated a single plant: even the oil palm is not often planted; sometimes indeed it is actually maltreated by a destructive method of stem tapping, but as a rule it is tended carefully, though one could not really describe it as a domesticated plant.

It is impossible to say when the cultivation of plants first began on the West Coast. Probably it did not begin until the second period, let us say five thousand years ago, when races began to migrate into West Africa from the east. No doubt this agriculture was of that primitive type known as 'chena' cultivation in the east, or as the 'wild field-grass' system of the Celts to which we have already referred: on the Coast the system is called "shifting cultivation" and the essentials consist in the clearing of land, its cultivation for a few years until it becomes exhausted and its reversion to natural vegetation until it has regained the fertility it lost. It is a system which is obviously wasteful of both land and labour, but it must be remembered that there was not often a shortage of land and that there was, and at present still is, no other practicable method of restoring the fertility of worn-out land,[1] so that the West African must still face the heavy labour of cutting a new

[1] But from experiments in Nigeria it appears that original fertility can be maintained if the land is farmed carefully from the beginning.

farm out of bush every few years. Probably it was at this time, too, that the system of growing different kinds of plants on the same piece of land began : perhaps this method of intercropping was a response to economy in clearing land, but at any rate it seems to suit West Coast conditions well. During this period of Eastern influence the emigrants seem to have brought many Old World agricultural plants with them. The bulrush millet (*Pennisetum spp.*) rice, and several other cereals probably came from the east : plantains, and perhaps bananas also, reached the West Coast by way of Egypt : Cocoyams (*Colocasia spp.*) and yams seem also to have come from the east, while among the domesticated animals that were introduced at this time were the ox, sheep, goat, dog and domestic fowl,[1] so that altogether the eastern period was characterised by the reinforcement of the existing flora and fauna by many exotic crop plants and animals. Towards the end of the period the main influence seems to have shifted from the east to the north with the founding of Gao and Jenné and the development of the vast Songhai Empire at Timbuktu, with the 'university' of Sonkoré at its acme in A.D.1500 under Askia, soon to be broken up by El Mansur "the golden" in 1591. There was a considerable trade carried on by these Moors across the desert between the West Coast peoples and Europe in gold, and to some extent in slaves, but notably in the "Grains of Paradise" that began to be so highly esteemed by mediæval Europeans. At this time it should be noted that the West Coast was exposed then to civilising influences where it fronted on the northern desert, whereas nowadays it receives its civilisation from its southern coastal boundary.

This period of eastern and northern influence still persists to a small extent, and so overlaps the two following periods, but it is convenient to consider it as ending when Europeans began to sail to the West Coast of Africa in considerable numbers. There is some evidence that "Norman Traders" landed on the West Coast in A.D. 1364, but they exerted no influence, and it would be more reasonable to fix the date as A.D. 1430, in which year a Papal Bull, confirmed in 1442, gave Portugal a monopoly of all lands lying South of Cape Bojador to the Indies. No

[1] Johnston, Sir Harry, *The Colonisation of Africa*, p. 20.

doubt the motives which lay behind exploration were as mixed among the Portuguese then as they were among European nations fifty years ago. In 1433 King John of Portugal on his death bed exhorted his son, Prince Henry, not to abandon the voyages of discovery which had become an object of ridicule since their failure to pass beyond Cape Bojador: the saintly Navigator on his rocky promontory at Sagres was filled with the enthusiasm of exploration for its own sake and was animated by a devout longing to enlighten and Christianise the heathen Moors, so he sent out caravel after caravel, until at last in 1441 Antom Gonçalvez brought the first gold dust and slaves from beyond Cape Bojador. Nuno Tristam pushed on to Cape Blanco in the same year, and their discoveries opened up boundless hopes of profit by trade in gold, slaves and "Grains of Paradise", and in this way these voyages became popular with a larger and less altruistic group, for in the following year a syndicate was formed at Lagos in Portugal for the purpose of selling slaves, and the Navigator himself, perhaps unwittingly, shared in the profits. In 1445 Diaz doubled Cape Verde and the Portuguese had by this time carried off a thousand slaves, but Prince Henry then reversed his policy of kidnapping slaves and continued steadfast for nine years. Meanwhile his caravels succeeded in penetrating further and further along the mysterious and forbidding coast. In 1460 Diejo Gomez reached Sierra Leone: two years later Pedro de Cintra reached Cape Palmas, and further exploration along the Gold and Slave Coasts was rapid, for in 1472 Sequeira had penetrated as far as Benin.

The Portuguese deeply influenced the West Coast as soon as they arrived, for they were not content with sailing along the coast line, but sent out numerous expeditions to explore the unknown interior to try to open up trade: they built forts, and towards the Congo at least, they made a valiant attempt at colonising these unhealthy regions. They are said to have brought the sugar cane from the Mediterranean[1] and the orange, lemon and lime from India, but their greatest service to Africa was their introduction of food plants from America. The benefit that the Portuguese so conferred on the African cannot be overestimated, for it is indeed difficult to picture West Coast

[1] Johnston, Sir Harry, *The Colonisation of Africa*, 1913, p. 91.

agriculture shorn of its New World crops : maize, sweet potato, groundnuts, cassava (whose spread into parts of Northern Rhodesia is within living memory[1]), capsicums, papaw, tobacco, tomatoes and a host of other crops were all brought across from South America, and this reinforcing of the flora must have immeasurably increased the comfort and internal wealth of the West Africans.[2]

After the lapse of a century other European nations began to envy the Portuguese trade on the West Coast, and by A.D. 1600 the British, Dutch, Danish and French had effectively broken up the Portuguese trade monopoly, and, as the predominating influences since then have been British and French, the fourth and latest phase of West African agriculture may be called the Anglo-French period. It now becomes possible to glean a few detailed agricultural facts from the earlier writers on the West Coast. Bosman[3] says that

"Their common food is a Pot full of Millet boiled to the consistence of Bread, or instead of that Jambs and Potatoes: over which they pour a little Palm-Oyl with a few boiled herbs."

He discusses a second sort of Mihlio or

"Maiz : I have seen it bought one thousand Stems or Stalks for six, seven, eight and nine *Takoes* each *Takoe* amounting to four pence farthing English-Money and a Sack amounting at highest not to two and twenty pence. Thus Corn, in time of Peace, is the cheapest of all provisions ; but in War-time it sometimes rises to an incredible Price : I have known a Thousand Stalks sold for an Ounce of Gold, which is somewhat less then four Pounds sterling" ;

he points out that the "Portuguese brought this '*Indian* Wheat' or maiz from the Island of *St. Thomas*, in the bight of *Guinea* to the *Gold Coast*". The literature of this period is specially inter-

[1] Smith, E. W., and Dale, A. Murray, *The Ila-Speaking Peoples of Northern Rhodesia*, Vol. I, p. 140, 1920.

[2] It is interesting to find that memories of these Portuguese importations are to be found preserved in the legends of some tribes to-day. Thus the Ekoi of S.E. Nigeria have a folk-tale which explains how tomatoes and egg plants came from the "ghost town". Talbot, P. Amaury, *In the Shadow of the Bush*, pp. 233–41, 1912. The King of Kesi in Egbaland, S. Nigeria, is said to have been the first in this district to grow maize and he is said to have maintained a monopoly in this grain by ruling that it could only be sold to other tribes after soaking in warm water and drying in the sun, which would, of course, effectively prevent germination. Ajisafe, A. K., *The History of Abeokuta*,, p. 12, 1924.

[3] Bosman, *Description of Guinea*, 1705.

esting and often quaint: yams are called 'ignames', 'jammes', 'jummes' or 'jambs': many curiously named fruits such as 'Pease of Kayor', 'Nompatas', 'Diabolos', 'Gobbe-Gobbes', 'Pefigos' and 'Jojooties' are mentioned: others are more recognisable, like Piement, Mourese Vine, Mandioca or Cassabi, papays, lemmons, pompions and "the Pisang tree, which is divided into Bakovens and Banantes or Bananas". On the whole Bosman does not seem to have been very favourably impressed with native agriculture, and he records the fact that the price of corn is increased by the demands of English slave ships and the laziness of the natives.

John Barbot[1] in 1732 gives a good description of shifting cultivation, but, like Bosman, he has a poor opinion of West Coast farming, for he remarks that "their sloth and negligence in looking well after their corn sometimes occasions a famine amongst them, as has been observed before." He shows that the Portuguese had made surprising progress in planting, for he records that in St. Thomas's Island there were 54 sugar mills together exporting 1500 tons of brown sugar to Portugal, the Canaries and England.[2]

In 1795 the Sierra Leone Company sent out an able and travelled botanist, Afzelius, who presented a report to the Court of Directors, and the following extracts[3] show his opinion of the agriculture practised there. Referring to rice, he writes:

"Although this plant prospers best in low and inundated places, it will thrive also on elevated land, though, in common with other plants of the aquatic kind, it will also grow small and thinner, producing at the same time better and more nutritious grain. Of this quality is the rice now found on the eminences of Sierra Leone, while on the plains of the Bullom shore, and other tracts, it grows as luxuriantly as in Carolina, and, if a proper apparatus were employed, it might by equal care be rendered equally white: but at present, through the negligence of the natives, both the rice intended for its own consumption, and that for the trade, retain part of the brownish bran, or rind. . . ."

and he makes remarks on the cultivation of other crops:

[1] Barbot, John, *Description of the Coasts of North and South Guinea*, 1732, Chap. III.

[2] Barbot, John, *op. cit.*, Chap. IV.

[3] Quoted from Lane-Poole, *A List of the Trees, Herbs, Shrubs and Climbers of Sierra Leone* (1916).

"4. Sweet Potatoes. . . . Sweet Potatoes thrive best in a loose soil, but the natives are as inattentive to the manner of cultivating them as to that of yams. . . .

"14 and 15. Orange and Lime Trees. These are very common in their wild state, bearing ripe fruit throughout the year, though not in equal abundance in all seasons. The oranges are excellent, and better, at least larger, than those brought to Europe. Some lemons, planted a long time ago by the Portuguese in the neighbourhood of the settlement, have degenerated so much as almost to resemble lime."

"17, 18, 19, 20. Squash, Water Lemon, Cucumber and Musk Lemon. These four species arrive at the greatest perfection, and by proper care might be made to surpass those of European growth. The first settlers found on their arrival no water-melons, but took the seed with them."

"Tomatoes, with which the natives season their rice, are angular and red. It is thought that capsicums grow wild, and that from the great demand for them in England, they might be worth cultivation."

"Common Tobacco grows at Sierra Leone, but the natives do not cultivate it."

So far ocean carriage to and from the West Coast had been a costly business: it was never an easy coast for sailing-ships because it involved extraordinary long delays to await favourable breezes, and only paid well with valuable cargoes like gold, slaves, peppers or ivory. But when steamships were invented West Coast trade was completely transformed and bulky agricultural produce could be carried to Europe at a reasonable cost: under this incentive to agricultural production new crops were either introduced, or indigenous crops hitherto neglected were developed. It has been mentioned that during the Eastern and Portuguese periods agricultural food plants from the Old and the New Worlds had been introduced and had greatly increased the internal wealth of the country, but during the Anglo-French period the new crops that have been introduced, or the indigenous crops that have been developed, have by contrast been characterised by their comparative uselessness to the native, and their value as export cash crops which have increased the external wealth of the Coast and been largely the cause of her present prosperous condition. New varieties of rice have certainly increased the food supply, but American and new native cottons in Nigeria, ginger and coconuts in Sierra

Leone, Para and Ceara rubber, coffee in Liberia, sisal on the Gold Coast and cocoa on the Gold Coast and Southern Nigeria are all crops which are only valuable as export for increasing the external wealth of the country, while the great development of indigenous oil palm products has also been the result of export trade.

When reports of West Coast agriculture during its recent period of active agricultural development are examined it is abundantly obvious that it still leaves much to be desired. If Afzelius' account is compared with Lane-Poole's report of the same area a hundred and twenty years later it is clear that European opinion of the local agriculture remains unfavourable, as the following extracts show :—[1]

"*Cocos nucifera* Linn. *Palmæ*. The Coconut palm. Cultivated in Sierra Leone for its fruit ; in more enterprising parts of the world it forms a very remunerative crop, yielding as it does Copra and Coir. Coconut oil is extracted in small quantities in Sierra Leone.

"*Cola acuminata*. . . . The tree has many enemies, the most dangerous being man. The native makes deep incisions in the trunk of a tree he considers is not bearing too well, and often kills the tree in the process. With a view to making the tree branch, he nips off the leading shoots of seedlings when only 3′ high, and so causes numerous branches to grow out from that point, and there, when the tree is mature, water collects and fungoid disease gains a footing. He allows the common mistletoe to cover the branches and regards it as an aid rather than an enemy, and when the branches die, he does not cut them out, but allows the rot to creep back to the main stem. . . .

"*Copaifera guibourtiana* Barth. *Leguminosæ*. . . . No attempt is made by the native to grade his gum, or to separate it from chips of wood. Undoubtedly by cleaner preparation and grading a higher price could be obtained. . . .

"*Elais guineensis* Jacq. *Palmæ*. Dependent . . . oil palm . . . prosperity, yet so short-sighted is the native that he is cutting down oil palms throughout the Protectorate in order to make rice farms. He argues that he cannot pick all the fruit and he wants to grow rice, so he thins out the palms. Needless to say, a time will come when it will be quite impossible to have too many.

"*Nicotiana Tabacum* Linn. *Solonaceæ*. The common Tobacco plant. It is under native cultivation throughout the Protectorate

[1] Lane Poole, *op. cit.*

and is an excellent example of the degeneration of economic plants through being tended by natives. It rarely grows higher than two feet. The leaves are dried in the sun, but not fermented in any way. They are then cut up and smoked. The natives prefer the imported Virginia leaf."

But instead of trying to gain a broad general idea of West Coast agriculture as a whole from individual opinion it would be better to examine the development of a few modern crops in greater detail and then summarise this more impartial evidence.

One of the crops that has transformed the West Coast most during this period has been cocoa, especially on the Gold Coast. Apparently introduced by a native returning from Fernando Po, and grown on the Akwapim Hills in 1891,[1] the export twelve years later amounted to 80 lbs. In twenty years the export had increased a million times (39,726 tons), and in 1923 reached 197,664 tons; the Gold Coast now exports more than a half of the total world supply, an extraordinary record which calls to mind the mushroom-like growth of young America and Canada.

The variety of cocoa grown on the West Coast is of the hardiest and lowest quality, and it so happens that in many parts of the West Coast it has found climatic conditions which suit it admirably: in fact, it may be said to grow like a weed, for it receives the extreme minimum of care and attention, and yet manages to grow most luxuriantly. One would not expect the actual crop to be of the best quality, because the hardy variety that is grown does not give superlative beans, but even allowing for this, the crop is disappointingly poor. This is partly because the trees are not tended carefully, with the result that their yield is low, and many diseased pods are allowed to remain on the tree and be reaped with good pods: the quality is further affected by unintelligent reaping, for the native tends to make sudden and infrequent descents on his cocoa plot whenever he needs ready cash, cutting off all the large pods he can see, ripe, over-ripe and unripe, healthy and diseased, instead of going through his plot more often and choosing only the pods that are ripe and sound: the beans are cured, fermented and dried in a very primitive and casual way,

[1] *Gold Coast Handbook*, 1924.

and it is therefore not surprising to find that the resulting cocoa is of poor and very variable quality, which commands a low price. Efforts have been made on the part of the governments by propaganda and encouragement to induce the native to improve the quality by quite simple means, and although progress has been made along these lines, radiating from the Farmers' Associations, it is disappointingly small. Signs are not wanting that this little less than providential economic growth of cocoa will soon begin to pay the penalty for its rankness. For some years past the inroads made upon the crop by diseases and pests have been serious, and may before long begin to be alarming. For years information about these diseases and pests has been disseminated, and the natives have been advised and strongly urged to carry out simple control measures for their own good, but the response has been very disappointing. The Gold Coast government then attempted to inspect and clean these plantations under European supervision, but the task was so immense that the scheme had to be abandoned. The Nigerian government introduced a compulsory system of inspection and grading of all cocoa intended for export, and the quality of Nigerian cocoa has improved considerably as a consequence.

The question of the exact effect of poor quality itself on the present and future cocoa trade of the Coast is somewhat controversial and has been closely studied. Organ[1] concludes that "the question of quality is the one outstanding problem of this great industry." On the one hand there is no doubt that West Coast cocoa commands a low price, and on the other hand there is the undeniable fact that there is a market for it, which however tends to become flooded. Perhaps it is best to allow West Africa to speak for herself:

"When this occurs, as must happen in the course of the next five years, the history of rubber may be repeated and market prices will fall. The country which can then produce its cocoa cheapest, maintain the quality and transport its cocoa at the smallest cost from farm to home market will have the advantage."[2]

But the outstanding feature of modern West Coast agri-

[1] Organ, E. J., "The Gold Coast Cocoa Industry and its Recent Developments". Paper read at Exhibition of rubber, other tropical products and allied industries. June, 1921.

[2] *Gold Coast Handbook* (1924), p. 119.

culture is, of course, the oil palm. It has always been uniquely useful to the native, giving him oil and wine, kernels, thatch, string and even personal ornaments of nuts, and it still has all these uses, but since the days of the "palm oil ruffian" of the 'seventies and 'eighties it has brought the main external wealth to the Coast by the export of palm kernels and of locally extracted palm oil. The fruits are cut down from the palm and treated by more or less primitive methods by the men to extract the palm oil from the fleshy matter, while the nuts are cracked by hand and the kernels collected and sold by the women. Native methods of extracting palm oil vary a good deal in different places, but they are all comparatively wasteful, and none of them gives oil which even approaches the quality that modern machine processes can extract. For more than forty years this waste and poor quality did not matter much, because the West Coast had a monopoly of palm oil and could set its own standards, but now the Dutch in the East Indies, the British in Malaya and concessionaires in the Congo have begun to exploit the oil palm and are setting up an entirely new standard for palm oil which is bound to reflect on the West Coast.

Although several central factories for carrying out the extraction of palm oil and kernels have been erected at various places on the West Coast, they have not proved lucrative or even workable, because it seems that the price offered to the native for his fruit is not sufficient to attract an adequate and continuous supply of raw material: there is a very weighty social difficulty, too, for at present when the natives have extracted the oil from the fruits they leave the nuts as a perquisite for their women, who crack them in their spare time and get pin money by selling the kernels; of course, if fruit were sold directly to the factories this simple automatic system of domestic economy would be destroyed, for the men would be given all the money for the fruit, including the kernels, and the women would lose their pin money. Sierra Leone has recently decided to start a palmery with extraction machinery to investigate what really can be done by more or less co-operative working in this industry, and in Nigeria other schemes for central factories have been outlined. In the oil palm industries, just as in cocoa, the problem of poor quality has to be faced.

Turning to less important crops like kola and ginger, rubber or coffee, or potential crops like tobacco or citrus or tomatoes, one finds that they all suffer from bad quality which is traceable finally to errors or casualness in growing or preparing agricultural plants. But if this poor quality is really so much of a stumbling block, one may well ask how it has come about that the West Coast finds herself to-day in such a strikingly successful economic position, and one cannot put forward an unanswerable indictment of inferior produce as long as this remains unexplained.

There would appear to be three main conditions which have predisposed these colonies to prosperity. In the first place the larger colonies are of recent agricultural discovery: they were rich, undeveloped, virgin countries whose soil and climate were not only extremely favourable for the growth of valuable crops, but which also bore naturally in abundance what is still the most important plant on the West Coast—the oil palm: a great part of West Coast prosperity is due, then, to the exploitation of virgin natural resources. Secondly, these colonies are thickly populated for Africa, the standard of living is low, and in consequence the costs of agricultural labour and production are small, as witness cocoa. Thirdly, several of the important crops of the Coast are such that they are not competitive in the world's markets: this is the case with palm oil, where the West Coast had a monopoly; and if it be true that there is an unlimited market for vegetable oils, we may add the shea products and groundnuts. These three factors, the exploitation of virgin natural resources, low costs of production and comparative freedom from competition, have been of the greatest importance in building up West Coast prosperity in recent years.

In view of the great bulk of evidence from modern West Coast agriculture it must be allowed that a case has been made out for charging the native with negligence or unskilfulness in agriculture: we have already seen, too, that this is no new discovery, for since the earliest days of Europeans on the West Coast there have been frequent reports of negligence or unskilfulness of the native farmers in looking well after their plants. How far are these opinions justified and what are the fundamental causes?

When a European walks through the West Coast bush for the first time he might well be pardoned for overlooking native farms altogether ; they are so entirely different from anything he can have expected, and the plants that are grown on them are usually so large and tall that they obstruct the view and make it impossible to see where the bush ends and the farm begins : the irregularly shaped plot seems to shade imperceptibly into the surrounding bush. When it dawns upon him that he is indeed looking at a farm his first feelings are incredulity and amazement, for he begins to make out several kinds of plants all growing together, apparently without any order or arrangement. There may be a forest of maize plants with masses of yam bines and stumps of bushes and trees with cotton or ochro plants scattered about, and every here and there an oil palm poking out above them. On second thoughts the whole scheme seems to him laughable and ridiculous, and in the end he would probably conclude that it is merely foolish to crowd different plants together in this childish way so that they choke each other. Yet if one looks at it more closely there seems a reason for everything. The plants are not growing at random, but have been planted at proper distances on hillocks of soil arranged in such a way that when rain falls it does not waterlog the plants, nor does it pour off the surface and wash away the fine soil : the stumps of bushes and trees are left for the yams to climb upon and the oil palms are left standing because they yield valuable fruit : and although several kinds of plants are growing together, they were not sown at the same time nor will they be reaped together : they are rather successive crops planted in such a way that the soil is always occupied and is neither dried up by the sun nor leached out by the rain, as it would be if it were left bare at any time.

This is but one of many examples that might be given that should warn us to be very cautious and thorough before we pass judgment upon native agriculture. The whole method of farming, and the outlook of the farmer, are so entirely new to us that we are strongly tempted to call it foolish merely from an instinctive conservatism. In India Europeans have fallen into the same error, but Sir Theodore Morison[1] quotes Dr.

[1] Morison, Sir Theodore, *The Industrial Organisation of Indian Villages.*

Voelcker as an authority who points out that considering the natural limitations, which we are apt to overlook, and under which the native farmer has perforce to work, his treatment of the soil is really very good. In assessing native agriculture, then, we have to guard against condemning native methods merely because they offend European temperate agricultural principles, and in addition we must be prepared to grant that there may be reasons for his peculiar methods of which we know nothing, even after we have considered them as carefully as we can with our present knowledge of tropical agriculture.

Of course farming varies a great deal over such a wide area as the West Coast: some tribes seem to have a bent for agriculture, while others are poor farmers, but we must try to arrive at a fair average. It will be easiest to consider food crops first, for export cash crops are in an altogether different category. We have already seen that food plants were introduced to the West Coast either at a remote time during the Eastern period, or else four centuries ago during the period of Portuguese influence, so that they are now familiar plants whose idiosyncracies the native may be expected to have learnt. So far as Europeans may be entitled to judge his methods, they certainly seem good. Cassava, for instance, is an exhausting crop, and consequently is the last crop grown before land is allowed to go back to bush: maize is sown early enough to absorb the full benefit of the first rains before the soil begins to be leached, and in the case of yams their methods seem very well adapted to the conditions under which the plants have to grow. Still, we would certainly not enthusiastically acclaim their food farming as excellent, for to a European it seems too desultory to be good: the traditional principles which guide them may be sound, but the standard of performance seems low: perhaps we ought not to go as far as the "sloth and negligence" of Barbot, but we might safely say that in food farming the evidence as a whole shows that West Africans are casual and inattentive "in looking well after their corn". The case of the kola tree is apt in this connection because the plant is indigenous, there is now a good local market, and the cultivation of the tree and trade in its nuts have been left almost entirely in African hands. Apart altogether from methods of cultivation and good yields, which can scarcely be judged, the

trees are often infested with insects : a great proportion of the nuts that are gathered are attacked by these pests and have to be rejected at once, while a further great proportion has to be thrown away during the re-pickings that have to be done before they reach the market, so that in the end only a small proportion is saleable. The control of these losses perhaps is difficult, but certainly to a European this valuable crop seems to be treated very casually. It is probably this kind of casualness, too, that is responsible for the diversity of type seen among their crop plants, in such striking contrast to the uniformity of European cultivated plants : indeed, it leads one to suppose that the natives have no idea of, or at least do not practise, that fundamental principle of the improvement of plants by selection : among their domestic animals also there does not seem to be any attempt whatever at evolving good breeds.

The position of export cash crops on the West Coast is entirely different from that of food crops. To begin with, most of these plants are importations from abroad during the recent Anglo-French period : plants like cocoa or ginger or para rubber are strangers to the natives, and the cultivation of other indigenous plants of commercial importance like coffee or gum copal is such a recent event that they have had little time to learn how to treat them. In the second place the native does not make use of these plants himself : he never drinks cocoa or makes chocolate, and he very rarely drinks coffee ; rubber or ginger or copal also find little or no place in a native household, and the result of this is that he cannot know what good cocoa or coffee is from his own experience : he knows a good yam when he eats one and he knows how to make the most palatable palm oil when he has to eat it himself, but what constitutes quality in cocoa, coffee, ginger or rubber must be a complete mystery to him : he must take what the white man says for granted and try to gather an idea of exactly what he wants and watch how he reacts when he gets it.

But it is very much easier to assess the native farmers fairly when we are considering export crops. The produce comes into the world's markets where it stands beside produce from other parts of the world and receives a value corresponding to its quality. Judged by the world's standard there is no doubt at all that West Coast produce is definitely and uniformly poor.

What of the actual growing of the crop? Here again we can apply a more absolute test than we can in the case of food plants, because these cash crops have been grown in many other parts of the tropics under fairly similar climatic conditions. The cultivation of export crops falls far below the level elsewhere: the plants are clearly treated in a casual and negligent fashion, and it is fairly certain that there is nothing to prevent these crops being cultivated really well in these areas by simple means which the natives could easily use.

The historical evidence might be summed up by saying that the West Coast was probably difficult land for the farmer because it was already occupied by dense bush and forest whose flora was not rich in crop plants until it was strongly reinforced by food plants and animals brought in from the East, while the method of farming that was adopted was, and has remained, a primitive method of fallows that can be found in early agriculture in many parts of the world: the flora was again reinforced by New-World food plants brought in by the Portuguese. It is difficult to judge the West Coast farmer as a food producer because so little is really known of his difficulties, but he certainly seems casual and inattentive, and in particular there is little doubt that his crops could be greatly improved by selection, a method which he does not seem to practise. As an export farmer growing recent Anglo-French importations, or preparing wild crops like the oil palm, he is certainly poor, and the quality of his produce is quite definitely inferior. In face of this evidence the West African in general cannot be honestly described as a good farmer: he was considered a negligent farmer by the earlier travellers on the West Coast, and he is still backward now, more especially in the case of his export crops.

The reason for the negligent attitude of the native in the treatment of his plants is not, perhaps, far to seek. In temperate countries man has always had to struggle hard for his existence: nature is not so kind there, and the never-ceasing battle to win a livelihood from the soil has, by the sheer necessity for victory, mothered his invention so far that he is ever alert for any improvement which will make his plants yield him a greater increase for all his labour: he has carefully selected plants and animals for centuries, he has learnt how to

Photo : C.M.S.

SHIPS LOADING OFF THE WEST COAST.

At most West Coast ports ships have to anchor in open roads : this fleet of sturdy surf boats, manned by Kru "boys" of magnificent physique, is tossing on the heavy swell, waiting for the ships' derricks to hoist the bags of cocoa on board. Note the low coast line, and compare with illustration facing *p.* 190.

treat difficult land, and how to manure it with the aid of animals or chemicals : lastly, in his uphill struggle he has discovered how to drain land and how to rotate his crops so that they will give the best possible result. The West African's position is quite different : it would be an exaggeration to say that he has a real struggle for existence, because his wants in a tropical climate are so much more simple. He needs neither an elaborate house nor warm clothes, but only a light shelter against sun and rain, enough clothes to be decent, a few utensils and implements, and his food : in his climate plants grow quickly and yield well, so he sits, as it were, in the lap of nature, and it is not surprising if we find him rather spoilt in this way. Certainly he might have tried to raise the level of his existence, but that would not be so easy as one may think. He could scarcely have done it by making two blades of grass grow where one grew before, because he lived in an isolated country and until recently there was no one to buy the extra blade when he had grown it. There is really nothing very surprising in the fact that the agriculture of backward peoples like those of the West Coast does not compare well with modern agriculture : but their standard of farming is unexpectedly low in a people where agriculture must have been of paramount importance, and it is most unsatisfactory when one reflects that the present and future of the West Coast must depend almost exclusively upon her ability as an agricultural producer.

But whatever the reason may be for this, it is beside the point at the moment : what matters now is that there is little doubt about the fact. It is a position which is daily becoming more clearly recognised since the West Coast has been so closely connected with the world and her exports have proved to be of such poor quality in the world's markets. That anxiety on this score exists at the present time all over the West Coast can be proved by the number of regulations that are enforced by governments for the inspection and grading of produce that is ready for export, whether it be cocoa, ginger, palm oil, or palm kernels. And while a review of the present may only cause uneasiness, an attempt to envisage the future will certainly lead to apprehension or something stronger unless one is unreasonably optimistic. Clearly there is a very definite limit in practice to the detailed regulation of agriculture by the

State : it is obviously a negative policy which cannot be pushed too far for reasons of cost and of common sense : it is true that the devil may be made to take the hindermost by careful legislation, but because vice has been punished it certainly does not follow that virtue has straightway been created. There is still left the task of finding farmers who will "look well after their corn", who will make the most of their land, who will protect their plants from diseases and pests and who will learn to prepare good produce ; in brief, there must be farmers who will be efficient by applying agricultural knowledge derived from agricultural research. A low standard of subsistence farming may have met the requirements of the West Africans in their simple life of the past, but we can be certain that a similar standard in export crops is not good enough to satisfy the insistent demands of an active civilised world.

CHAPTER III

MODERN HISTORY: AND THE SOCIAL THEME

THE remaining part of the agricultural fugue, the social theme, does not need such a deep historical background for its proper appreciation as the other two, but can be seen sufficiently well in modern history.

It is no mere convenience to speak of the modern history of West Africa because there was really a distinct break, a reversal, and then a re-orientation in the orderly unrolling of events a little more than a century ago. So far as European influence is concerned it becomes obvious that the dividing line in West Coast history is the abolition of the slave trade, firstly by Denmark in 1792, followed by the United States, Great Britain and France. Before this date Europeans came to West Africa chiefly to acquire slaves in passing to America, but after it they came mostly to free them on the seas, or to prevent the traffic at its real source in the hinterland. During the slave trade white men sailed quite literally to the West Coast and anchored their ships off the shore, or their old hulks in the rivers and creeks, waiting hopefully to barter for whatever goods chanced to filter through the country and reach their floating warehouses, but in the new era they come increasingly to tap and to develop the real sources of wealth in their inland 'factories' and 'canteens' in West Africa.

Looking back now in the light of present knowledge the abolition of the slave trade stands out with unnatural distinctness as the beginning of a new era, but it was not so obvious a turning-point at the time. To some there seemed then no reason for further European interference, and statesmen were especially anxious to withdraw entirely from the West Coast, but the aspirations of philanthropists, missionaries, traders and imperialists could not be pent up so suddenly, and it was not long before they all re-oriented their aims and began to divert their

energies into ways more suited to these new conditions. As usual, it is not accurate to speak of a new aim, because there were actually a multitude of aims, but it is at least possible to distinguish three quite natural phases of development. The first was an age of exploration during which the broad outlines of the country were discovered and described : this was followed at the beginning of the twentieth century by a phase in which indefinite "spheres of influence" were delimited into the present political map of West Africa and main railways, roads, harbours and other works were laid down ; this was the age of "opening up" or framework construction. Then it is clear that a third phase began in the third decade of this century, when everybody had become more and more conscious that the real foundations of the prosperity of these colonies must inevitably lie in the masses of the indigenous population : this is especially obvious in the increasing attention that is being given to such matters as public health and education, so that this third phase may well be called the age of human development.

The age of exploration began with the remarkable journeys of Mungo Park to the Senegal, the Gambia and the Niger rivers with their amazing and almost incredible hardships. He was followed by Major Laing, who described the Roquelle River of Sierre Leone and journeyed in the Western Sudan. Rubaut and Mollien made known Senegal and the source of the Gambia River, and in 1817 Bowditch made his famous journey to the king of Ashanti, where he came into contact with Hausa, Mandingo and Moorish peoples : his book contained a mass of information on the geography, ethnology and languages of this region and awakened a great deal of interest. Soon after, Oudney, Clapperton and Denham travelled from Tripoli across the desert to Lake Chad, Kano and Sokoto. Clapperton and Lander made known Yorubaland and the Nupe country, and in 1830 the Landers followed the course of the Niger from where Mungo Park was killed at the Busa rapids right down to the mouth at Brass, but neither of these important explorations attracted much interest. Ten years later Beecroft investigated the country behind Old Calabar and described the Cross River. Barth, one of the greatest West African explorers, journeyed in Northern Hausaland in 1850 and wrote a great work which attracted much attention and must have exerted a great influence in

Europe : meanwhile Paul du Chaillu was startling the scientific world with his remarkable discoveries in the natural history of these regions, notably in the finding of the gorilla, so confirming Hanno's tales of the "beasts like men". In 1860 Winwoode Reade travelled to the source of the Niger, and though his explorations were not very important, his books certainly were, for he was primarily a literary man and his descriptions were so real and vivid that they focussed a great deal of popular interest on West Africa. Burton described Dahomey and the Cameroons, Bonnat, in 1876, the Gold Coast hinterland, and Professor Büttikofer dealt with Liberia. More recently the brilliant young explorer, Joseph Thomson, journeyed from the Niger mouth to Sokoto and Binger, an outstanding African explorer, travelled on the Upper Niger and in the Gold Coast hinterland.

The published accounts of these explorations, especially those of Mungo Park, Bowditch, Barth, Winwood Reade and Binger were eagerly read by an astonished world and stimulated a desire to acquire these lands, or to evangelise or trade with the natives. All the accounts of the explorers agreed in at least two things : they impressed the civilised world both with the vastness of the country and with the great dormant wealth of natural resources and particularly the agricultural resources. Nowadays the exuberant vegetation of the tropics, or of the West Coast in particular, is taken for granted, but it is worth while digressing a little for the sake of a clearer appreciation of the peculiar value of the tropics.

Most of the explorers spoke of the intensely fertile virgin soils of West Africa which they implied were the cause of the prolific vegetable growth that they saw everywhere towering in masses around them. One would not suggest that it is yet possible to measure the fertility of a soil with absolute accuracy, but researches have certainly shown that tropical soils, as assessed by modern methods, are not in themselves remarkable for richness. The fact seems to be that the peculiar climatic factors of the tropics which have such a great influence upon vegetable growth are often ignored, for one is apt to forget that plants do not derive all their energy, or all their food, from the soil. In the tropics conditions are much more equable for plant growth than they are in temperate regions ; there is a high

temperature to favour chemical change, there is adequate moisture from the abundant rain, and there is a great deal of light which is used not by an increased efficiency in tropical plants (for plants are apparently very inefficient as users of light energy), but by a greater depth of vegetation which is shown in a tropical forest by the successive layers of high trees, shorter trees, climbers, shrubs, and ground flora.

Of course, there are many useful plants like sugar, tea, coffee, rubber and spices which only grow in the tropics, and so have an obvious unique value, but the ordinary tropical plants do not show much evidence of tropical exuberance. Millets often yield less than temperate cereals, while rice and maize are about equal. Yams, cassava, coco-jams and sweet potatoes give more than the potato, the sugar cane certainly crops heavily, and that giant herb, the banana, is undoubtedly amazing, for it can give ten times more food than wheat and is not a particularly exhausting crop. But in the tropics there are usually two harvests in a year, and then one must realise that in comparing the yields of temperate and tropical crop plants one is dealing with things which are not properly comparable. Temperate agricultural plants are really cultivated plants which have been most carefully selected for centuries, whereas tropical plants have, in comparison, been very poorly selected; they seem to be much nearer to their wild ancestors. This becomes clear on reviewing some of the startling results that have been achieved by selection in plants grown in the tropics. In India the new variety of sugar-cane called "Coimbatore No. 213" yielded at least a four-fold increase in cane compared with the usual varieties and at the same time an increase in the extractable juice. Howard's new wheats, "Pusa 4" and "Pusa 12", gave at least a two-fold increase, and in Nigeria a newly-introduced rice, the "Maliya" or "Guinana Creole", usually gives twice as much rice as the old variety. In the future when proper care has been paid to tropical plants one may expect a better proof of the potential agricultural wealth that lies in the tropics, and we shall better appreciate the unique value of the tropics as the world's great natural laboratory *par excellence*, where solar energy can be absorbed and used in the natural process of food manufacture better than anywhere else on earth.

But to return to history, it was not long before the glowing

accounts of the explorers began to have their effect; all sorts and conditions of men were attracted to the Coast and the age of "opening up" was ushered in. Of course, their aims differed: there could be no agreed and conscious aim, because everyone who goes to Africa has his own ideal towards which he strives, but there was an exceptionally wide range of ideals in the early days; there was everything from the ideal of the "palm oil ruffian" who wanted to make his fortune in the least possible time and who was so utterly indifferent to all else that he usually lost both mental and bodily health, to that of the missionary who wished to "convert the heathen" to his own precise dogma, while the government servant wanted control over these virgin lands and felt justified because each thought his own nation would make the best and fairest use of them. The objects of those at home, though perhaps more definite, were still very mixed, since they included the suppression of the slave trade, the protection to some extent of missionary enterprise and the necessity of enlarging our "sphere of influence" for trade purposes in view of French and German competition. But gradually, as the countries became better known and more settled, the extremist aims were seen to be absurd, or impossible, and some sort of consensus of ideals began to take form during the first two decades of this century. Ultimately Lord Lugard gave precision to this ideal in his conception of the dual mandate, using the following words:—

"Let it be admitted at the outset that European brains, capital, and energy have not been, and never will be, expended in developing the resources of Africa from motives of pure philanthropy; that Europe is in Africa for the mutual benefit of her own industrial classes, and of the native races in their progress to a higher plane; that the benefit can be made reciprocal, and that it is the aim and desire of civilised administration to fulfil this dual mandate."

The idea of reciprocity in the work of white and black men here emerges very clearly.

While this aim was gradually being defined the material framework or skeleton machinery for West African trade was being actively planned and largely executed. Surveys were sent out and railways were pushed further and further into the hinterland: harbours were discovered or improved, roads, telegraphs and all manner of public works were carried out:

rivers were made navigable and used, and traders very soon learnt the new technique and organisation of trade in the hinterland: armed forces were trained and all parts of the country were brought under control. The missionaries were among the first in the country, and they evangelised and educated a considerable number of natives, so that the literate natives from their schools were of the greatest value to trader and government alike in this age of laying down the keel, as it were, of West Coast prosperity.

Of course there have always been Europeans on the West Coast who have been interested in the natives purely for their own sakes, but during the last few years the importance of the native as an individual has been realised so universally that we should be justified in saying that the third decade has been characterised by an attempt at human development in all directions—it is the human side of African development. In this present age of human development everyone is coming to see that the development of the West Coast means in fact the development of the individual native himself. The status of the African in European-protected territory has always been a very controversial point, but it was really brought to a head when the Allies were forced to consider the question in dealing with the future of ex-enemy colonies. Their decision was embodied in Article 22 of the Covenant of the League of Nations, which reads :—

" To those colonies and territories which as a consequence of the late war have ceased to be under the sovereignty of the States which formerly governed them, and which are inhabited by peoples not yet able to stand by themselves under the strenuous conditions of the modern world, there should be applied the principle that the wellbeing and development of such peoples form a sacred trust of civilisation, and that securities for the performance of this trust should be embodied in this Covenant.

" The best method of giving practical effect to this principle is that the tutelage of such peoples should be entrusted to advanced nations who, by reason of their resources, their experience, or their geographical position, can best undertake this responsibility and who are willing to accept it, and that this tutelage should be exercised by them as Mandatories on behalf of the League. . . ."

This does not mean an absolutely fixed method of dealing with dependencies as unalterable as the proverbial laws of the

Medes and Persians, for we must remember that it was agreed to by the Powers acting largely in ignorance of the practical material and moral considerations, which are not precisely known and which may later on be found to limit the possibility of applying the principle laid down, but it does represent the agreed ideal towards which all civilised peoples have promised to strive, and to this extent it will guide the policy not only in mandated territory, but also in dependencies generally.

In West Africa, then, policy is shaped by the conception of a reciprocity, or dual mandate, in its widest sense of including the tutelage of the indigenous population, but there are also all kinds of practical limiting factors in carrying out development in this particular case. Chief amongst them is the notorious West Coast 'climate', though it would be better to call it environment, because it includes all sorts of factors that have nothing to do with meteorology. The actual climate varies a good deal over the area, but generally it is hot and damp with little diurnal change, which is certainly not healthy for Europeans, nor probably for the natives either, though we usually take it for granted that they are as healthy in their own climate as Europeans are in theirs ; the sun in West Africa is peculiarly strong, and though it does not often cause fatal effects in Europeans because they take special precautions, yet it is often tiring and sometimes distressing, and if the precise remedy for its mysterious action could be found, all Coasters would be grateful. There is a good deal of disease and, though these diseases are endemic rather than epidemic, their prevention is rendered exceedingly difficult over such vast areas with such a low standard of living ; from these diseases the fittest Europeans, by taking special stringent precautions, suffer perhaps less frequently, but certainly more severely than the natives, and in addition they often have to live a hard life on poor food, and they have continually to bear the moral strain of living alone, or in small numbers, among overwhelming numbers of backward peoples. Some of these difficulties will get easier in time, but their total effect for many years is to make a properly qualified European a very expensive item and hence a rarity in any kind of development or administration. To fill a post on the West Coast requires at least a man and a half, or if the post must always be kept filled, then two men ; he has to be

paid a considerably higher salary than in a similar kind of post in other countries ; he needs a house and furniture, a good deal of medical attention, transport provision or allowances and a return ocean passage at least every eighteen months, and he has also pension rights which must be met in the future. No matter how little a European may actually receive for his salary his post will scarcely cost less than £800 a year, and it will usually be far more. The number of Europeans which can be engaged in any enterprise in West Africa is therefore manifestly very limited, so that development must, for the sake of efficiency, be attained by directive and advisory methods rather than by minutely executive or administrative means : their numbers must be so small that they can only represent a leaven in a great mass.

All these factors chiefly affect white men, but there are much more important factors from a black man's point of view that will limit and direct development on the West Coast, and from an agricultural aspect the relationship which exists between the people and the land is the greatest. It is difficult for civilised people to realise the point of view of peoples who live, have always lived, and apparently must continue to live directly and entirely upon what the land will produce. A West African tribe regards the land as a unique substance which is capable of supplying every material want if it is treated in the right way ; what is more, they see that it has done so in the past, and they see no reason why it should fail to do so in the future ; land to them is almost as good as the widow's cruse of oil ; if a West African has land he and his children can never starve, while if he has no land he must always depend upon others, and his posterity will therefore be at the mercy of chance ; because the West African is not concerned with land as something to be possessed, but with its *use* as a perpetual usufruct. Land in his view is insurance for his posterity. It is an attitude which has been born in response to their own need in farming for subsistence rather than for profit, and we cannot deny that it meets those needs. An individual is given land for his family, in trust as it were, but he is expected to use it for supplying the material needs of that family, and he is expected to hand it over afterwards for the use, indeed for the very survival, of his posterity. "The Ashanti land laws of to-day appear but the

logical outcome of a belief which, in the not very remote past, considered the living landowners as but holding as it were tenancies at will from the dead, and as being the trustees of the latter."[1] Whether this is the outcome of an actual belief, or whether the system was just developed gradually from common sense, matters little from our point of view, but there is no doubt that it is a very strong tenet upon which they still act. But in addition to these practical considerations we must take into account the fact that the negro is intensely religious and believes absolutely that the spirits of departed ancestors 'haunt', as we might say, the scenes of their earthly labour, and as the natives have been in possession of their land for centuries, they have an ever-present veneration and love for it which far surpasses even the sentimental attachment of the European landowner for his ancestral acres. And lastly, the land itself is sacred because it is inextricably connected with their second great deity, the earth Goddess. These facts but serve to suggest some reasons why the West African has such an intense attachment to his land, an attachment whose tremendous strength is but partly revealed whenever the smallest alteration of land law is even suggested, such, for example, as the Crown Lands Bill of 1894 and the Forest Bill of 1911 on the Gold Coast and the West African Lands Committee of 1912–15. It is therefore apparent that indigenous systems of land tenure must be adhered to very closely even in some of their small details, though of course all of us must agree that they may very probably need to be modified and further evolved from time to time as a natural reply and re-adjustment to rapidly altering conditions of life.

Land tenure will be discussed in further detail later on, but it is necessary to point out here that the land laws of the West Coast reflect the native genius in political organisation, which is democratic : that is to say, that it resembles democracy much more nearly than any other form of government, and one must not, of course, assume that democracy on the Coast is precisely the same in all details of its machinery as European or American democracy.[2] There is no need to picture any such absurd pro-

[1] Rattray, Capt. R. S., *Ashanti*, 1923, p. 216.

[2] An excellent summary of Gold Coast native institutions was written by C. W. Welman in *The Times* West African Supplement, October 30th, 1928, and the statements apply more or less to the whole of the West Coast.

cess as a tribe of natives all casting their votes into a ballot box : they attain their end by far simpler and more natural means, but the effect of it was to give a relatively enormous number of people an effective power in the ordering of their own government. The great chiefs on the West Coast at first sight appear to be absolute rulers, but in reality they are not autocrats, but rather representatives. The great King of Ashanti was the Lord Paramount of all land in his kingdom. "This monarch, however, was always held very much in check by his hereditary councillors, and still more by the clan system, by reason of which no single free man, woman, or child, could ever be considered or treated as a separate entity apart from his or her clan."[1] And although it is true that the king was part-heir to all his subjects and in return contributed to their funeral expenses, this only applied to personal property and not to land : "Even when a clansman had committed some capital offence . . . the king, despotic as he was in many ways, did not dare to seize the offender's land, because he would have had opposition from the whole clan."[2] Crown or 'Stool' lands certainly do exist, but Rattray is convinced that they grew out of family lands and not *vice versa*.[3] The sacred Alafin of the Yorubas, legendary descendant of Oranyan the founder of the nation, whose son was Sango, the terrible god of lightning, an office so awe-inspiring as to be hereditary, was in fact not so autocratic as he appeared, for the line of succession was by no means rigid, since it was only confined to members of the royal family and the president of his council, acting as the mouthpiece of the people, could denounce unacceptable acts and end his reign.[4] The Alafin, too, was said to be the owner of all land, but this is a majestic title, for in truth he had even less power in this respect than the King of Ashanti.[5] Another great Yoruba chief, the Oni of Ife, claimed spiritual rather than temporal power, and so has often been thought of as a kind of archbishop, but even he has his councillors whose advice must be sought. The Oba of Benin has his council of chiefs : the Bale of a Yoruba

[1] Rattray, Capt. R. S., *Ashanti*, 1923, p. 224.
[2] Rattray, op. cit., p. 231.
[3] Rattray, op. cit., p. 220.
[4] Johnson, *History of the Yorubas*, 1921, pp. 40, 70, 71 ; and Ajisafe, A. K., *The Laws and Customs of the Yoruba People*, pp. 17, 18.
[5] Johnson, op. cit., p. 95.

town is quite obviously elected and is the representative of some more or less secret society of old and eminent men, who in their turn, though not so obviously, really represent great masses of the population. Amaury Talbot compares the government of the Ekoi by means of Elders to the old γερουσια, in which only the elders have the right to speak, though others may certainly do so on sufferance. In fact chiefs on the West Coast are exactly like the transformed hunting chief who was pointed out while seeking to appreciate the nature of agriculture, and it is highly significant that Sir John Hawkins nearly four centuries ago should quite naturally describe him as a 'Captaine' with his 'Elders'. The effect of this native genius for democracy is to give the chief no more land than any other individual, and to distribute land rights widely and more or less equally, so that there are democratic communities consisting of multitudes of small farmers or peasant proprietors of much the same social and economic status. The temporal lord scarcely exists on the West Coast, and there is no conception whatever of a landlord in the European sense. This is the real starting-point in considering the social side of West Coast agriculture.

Another matter to be borne in mind in the present relationship of the people to their land concerns the density of population. For Africa, the West Coast is very densely populated, though absolutely the figure of about fifty to the square mile does not seem very high, yet in some places, such as the Onitsha and Warri provinces of Southern Nigeria, it is as high as three hundred, and so reaches European proportions. But we have to remember that owing to the tse-tse fly it is at present impossible to keep the larger livestock on most of the West Coast, and in the absence of efficient systems of crop rotations or manuring, the only way of maintaining the fertility of the land is to allow to it lie fallow and practise a system of 'shifting' or 'chena' cultivation. It therefore requires a good deal of land to raise crops, and in densely populated areas land hunger is beginning to be felt, while the coming of a settled peace and the consequent improvement of public health will tend to increase the population and accentuate the difficulty. Furthermore, as one can at present see no great industrial enterprises to absorb a larger population, and as the tropics have a peculiar agricultural value to mankind, the West Coast is therefore

naturally orientated towards a well-manned intensive agriculture like Java or Japan or the Punjab, rather than the extensive low man-power farming of Canada, Australia and perhaps even parts of East Africa.

The chief social considerations that must enter into the agriculturalist's point of view on the West Coast have now been described, but there is still another factor, which, while not of direct agricultural interest, is nevertheless so outstanding in the present state of the Coast that it ought to be emphasised above all the others. The West Coast is in an extreme state of flux: she is changing very rapidly because she is being subjected to enormous, invisible and largely uncontrollable forces that will soon render her unrecognisable. In the language of the day these forces are now spoken of as the "impact of civilisation", and their effects too often result in the "disintegration of native civilisation".

The situation has arisen in this way. The first travellers to the Coast were explorers, who examined the country and its peoples and were humanly moved by what they saw, but they did not and could not interfere, while the West Africans on their part thought they were uncanny, god-like people who seemed strangely passive and remote, "men from the stars", as they not inaptly called them. This first relation of white and black man was indeed a passive one of spectator and spectacle, a vision of barbarity on one side, a vision of civilisation on the other. But as soon as civilised people began to see the West Coast through the books that the explorers wrote they suffered an intolerable itch to interfere, to alter, to develop, and groups of people soon banded together to carry their aspirations into action. The men who came out after this were no longer spectators, but men of action with definite aims of rapid development, the vanguard of the "impact of civilisation".

They had to face the old problem of trying to "open up" and develop a primitive country, but the old problem had become immeasurably more difficult because the gap between civilised and primitive man had widened with the passage of time: the impact was not that of the spacious days of eighteenth-century civilisation, not even the weight of the nineteenth century, but the full force of the hurried twentieth century thrown against the almost unknown conditions of primitive

Africa, and it is not surprising that there was friction and discord. Looking back now, people realise that most mistakes have been caused by under-estimating the importance of native civilisation until, too late, they see what happens when it begins to disappear.

Civilised people had, indeed, often fallen into this error in other parts of the world long before this, but there were special reasons on the West Coast that aggravated this unfortunate tendency. Europeans expected to find powerful African kings surrounded by savage pomp, and the pioneers did indeed find something of that sort in the hinterland of West Africa and, like everyone else even down to the present day, they were strongly and favourably impressed. But on the West Coast itself they found few powerful kings, no great palaces, no large courts and no impressive ceremonial, and they therefore took it for granted that the things they represented did not exist. They overlooked the possibility that the genius of the people might not create the form of organisation they expected and, true enough, Africa certainly seems the last place where one would expect to find any kind of democracy, because we think this is so modern and civilised. So they were often badly misled, just as at the other extreme an inexperienced Eastern prince would be misled by a very ordinary looking president, prime minister and cabinet of a European republic. Because there are very few temples and no obvious priesthood it is a mistake to jump to the conclusion that there cannot be any force in native religion, and it is a great error to suppose that there is no education of the young because there seem to be no schools or schoolmasters. The apparent chaos one sees on market days, too, conceals wonderful economic organisation. In these ways the simple form of democracy on the West Coast makes native civilisation inconspicuous to the stranger and unfortunately causes it to be under-valued ; while by contrast the spectacular Mahommedan organisation of the West African hinterland is often correspondingly over-rated.

It is a general tendency, aggravated by peculiar circumstances in the case of the West Coast, for civilised people to underestimate what almost any native society, or civilisation, must mean, because the fundamentals of civilisation are never really given a thought nowadays, but are just taken for granted and

overlooked until they begin to give way ; just as the ordinary house hunter never dreams of looking at the foundations of the house he intends to rent because he has long ago taken it for granted that all houses have proper foundations, and as they do not catch his eye he forgets all about them until his house begins to crack, and then he is aghast at his own gullibility and carelessness. Whatever West Coast civilisation may have lacked in height, it at least had the essential bases that peaceful human society must have : a certain unity binding individuals together, a certain plan which ordered the relations of individuals to each other, and a stability founded on custom and religious beliefs. In fact West Coast civilisation reminds one, not perhaps of a sky-scraper in a modern city, but at least of a well-built old cottage in the countryside with its individual bricks mortared together, arranged on an orderly plan and standing upon firm well-tried foundations.

Most of the men of action who represented the impact of civilisation either did not notice the simple cottage of native civilisation or else they passed it over as inadequate for future needs. The traders began to deal with individuals and not through the chiefs, and though this seemed innocent and even right, yet its effect was to open up enormous opportunities to an individual as against the tribe, and this disturbed social relationships just as war-time conditions gave opportunities for war-time profiteering. The native assistants of traders, and the clerks of the government in the early days, came under the direct control of white men and began to lose their regard for tribal authority : a strange system of economics crept stealthily in and altered social relationships more and more. The tribal plan of discipline and morality was affected : the mortar that bound individuals together and in place began to be dissolved and the bricks became loose and jumbled together so that the fixed design began to disappear. Then again both governments and missionaries objected to human sacrifices, trial by ordeal or witchcraft, and when they interfered and stopped them they began to disturb the religious foundations on which native life was built, while the spread of Christianity and Islam further disturbed them. In a thousand great and small ways the comparatively firm structure of native life began to be silently unsettled, as more and more white men came to the West Coast

Photo : C.M.S.

A MARKET CORNER IN A COAST TOWN.

The complex organisation of village and town markets has been developed almost entirely by the West Africans themselves. It is even more striking to find that the markets are nearly always in the hands of women.

and the impact of civilisation increased. Discipline, morality and religion were being subtly eaten away, leaving thousands of individual pieces jumbled together with scarcely any order, resting upon cracking foundations.

This disintegration of native life is peculiarly dangerous because the precise causes seem small, or may be hidden and come to light only in unexpected places at the most awkward times, often long after their primary cause. When we think we are purging native civilisation of its obvious social, economic or scientific offences we must always remember that we are almost certainly destroying many other things associated with them that may still be useful or indeed essential: we cut away something that seems bad or useless and years afterwards we find that after all it was part of a prop, and that quite unconsciously and with the best of intentions we have undermined the structure; too late we realise that we ought to have kept a watch on the foundations and have underpinned them as best we could. One must not underrate the force that lies behind the impact of a new civilisation. The sudden introduction of communism into Russia is probably mild compared with the continuous impact of twentieth-century Europe on primeval Africa. It would be instructive, for example, to know what proportion of natives are married, in accordance with any law whatsoever, to the women with whom they live in towns which have been subjected to the impact of civilisation during the present generation, and if we study other parts of Africa where the impact has been more severe, or has acted longer, we shall appreciate even better what trouble, unrest and inefficiency it has caused.

However much we may deplore the effects of the impact of the modern world on primitive Africa, it is impractical to think for one moment that we can remedy matters by stopping the impact altogether and leaving the African to his own simple quiet backwater, even if we can first be convinced that his old life was really so pleasantly Arcadian as some people would have us believe. Africa cannot remain isolated from the rest of the world, and it is inevitable and right that she should be civilised; it is the methods used in introducing civilisation that have been faulty, and not the principle that civilisation must be introduced. If we leave European civilisation to itself it will

rush into the countryside of primitive Africa with a force that will shatter the cottage of native civilisation into a thousand fragments and leave it destitute of any social structure, but if we try to control its violence wisely we may be able to buffer its impact and turn it into a slow, progressive force that can mould and reconstruct little by little so that the people are never left altogether homeless. The modern ideal of progress among primitive peoples is to take native civilisation as it is and try to preserve and build up what is good and reject what is bad, but as a policy it presupposes that we flatter ourselves with a superhuman knowledge of good and evil. In practice it means that we must patiently study native institutions and earnestly try to estimate their worth, set about as much constructive work as possible to balance the inevitable unseen decay, and on principle avoid all sudden changes. In the purely political sphere on the West Coast this was early realised, and a most admirable system of 'indirect' rule or local self-government, which makes use of the old native government, is gradually being built up, mostly by the initiative of Lord Lugard, and has already avoided or mitigated many of the evils of disintegration.[1] But in nearly all other fields, economic, commercial, industrial, religious and technical, the impact of European civilisation is heavy and disruptive.

One is sometimes told that the missionaries are to blame for this disintegration: it is quite true that they have been the means of great changes, but they have always tried to put in something better than they took out, and it certainly is remarkable that we should forget that the "palm oil ruffian" was a past-master at disintegrating, especially since he implanted hardly any good in return. The truth is that everybody has had a hand in this process of disintegration, and most of the harm that has resulted was done in sheer ignorance and often with the best possible intentions. It ought to teach us a becoming humility and caution in dealing with these matters in the future. Those who have a perception of the horrible will appreciate the awfulness of the sundial inscribed with "It is later than you think": it is almost as alarming, and certainly

[1] This method of government has also been largely adopted in Tanganyika and the Anglo-Egyptian Sudan, with excellent results.

more accurate, to say of the West Coast, "It is changing more quickly than you think."

We may, then, recapitulate the salient points in the modern history of the West Coast by saying that when the slave trade was abolished a phase of exploration began, and Europe soon realised the unique value of these tropical areas as vast natural laboratories for vegetable growth and agricultural production. In the course of the next phase, while the material framework of West African prosperity was being laid down, Lord Lugard crystallised the vague ideal of European nations as being a "dual mandate", an idea of a reciprocity in trade, tropical agricultural products being exchanged for the manufactures of the industrial temperate regions. More recently, civilised nations have agreed that there is also a sacred trust laid upon protecting powers by which they are bound to have an earnest regard for the wellbeing of the native peoples in the development of these countries. The environment of the West Coast is such that it is impossible at present to employ very many Europeans to pursue these ideals, so that for the sake of efficiency they must be reserved for directive, advisory and educative functions rather than for detailed executive purposes. The natives of West Africa are very closely attached to their land and their democratic organisation, the density of population with its probable increase, and the present requirements of farming on the West Coast, all taken together seem inevitably to orientate the West Coast towards a well-manned, intensive agriculture practised by a multitude of small peasant proprietors of a fairly uniform status. Finally we have always to bear in mind the fact that the West Coast is in a rapid phase of change brought about by the impact of civilisation upon her, and that unless the greatest care and restraint is exercised in developing the West Coast her naturally strong constitution may be jeopardised or weakened by the disintegration of the civilisation she already possesses.

CHAPTER IV

A DIGRESSION, ON SCALE IN AGRICULTURE: LARGE ESTATES AND THE "PETITE CULTURE" WITH HIGH AND LOW FARMING

IT is now best to leave West Coast agriculture for a moment and make another excursion into more universal experience. It is necessary to digress like this in order to try to lay the ghost of a problem that otherwise will keep on appearing at awkward moments and disturbing all calm reason as soon as we try to envisage future West Coast farming and judge fairly between the various methods and possibilities in development. It concerns the question of the influence of scale in farming, which from the evidence seems an open enough question, yet the common impression still is that it has been answered and that the matter is now closed. The difficulty in forming a fair judgment is psychological rather than real, and it is best to treat it in the fashion approved by psychologists for exorcising a complex by dragging all the important facts and imaginings into the full light of day and satisfying ourselves that there is nothing very frightening in it after all.

Scale in farming is a most important factor: indeed, it cuts so deeply into the practice of agriculture that it modifies the whole technique, but it is a great mistake to put it on a level with the three great themes of the agricultural fugue that together result in a type of agriculture, or agricultural organism. For the three great themes are primary and formative: they mould a type of agriculture, and so pre-determine and dictate the scale of individual farming operations. It would therefore be foolish to investigate the relative merits of large-scale and small-scale farming in the hope of arriving at some absolute or ideal scale which can then be applied in practice. This is putting the cart before the horse, and every argument started in this way can only proceed in a vicious circle.

The chief factor which generally determines what scale of

farming is to be practised is the relation between the quantity and quality of people to the quantity and quality of the agricultural land available. In Canada, for instance, there was a small, indigenous population and vast unoccupied stretches of incredibly fertile virgin prairie that led naturally to an extensive type of farming, which, however, is really not so much farming as a prolonged reaping of stored-up fertility, or agricultural mining. In the United States there was a similar type of extensive farming at first, but it is now becoming more intense, since the population has increased and the soil has been lowered in fertility by continued cropping without any return. In Australia, too, the aborigines were few in number and unable to weather the impact of European peoples, so the vast grass lands were used for sheep farming on an enormous scale. At the other extreme there are European agricultural countries like Holland and Denmark where the population is dense and the standard of living high, so that the type of agriculture is very intensive. Both these types of agriculture are good because they are very well adapted to the peculiar immediate conditions in each country, and it would be ridiculous to recommend large-scale agriculture in Holland, or the *petite culture* in Australia.

One can see, then, that it is impossible to answer whether large or small scale gives universally the best farming, because there is no generally acknowledged absolute best farming. No two people will agree as to what constitutes the best farming, for it depends on a multitude of factors, including personal opinions and moral judgments. Apart from this one can only suggest that the best farming is that farming which most perfectly harmonises the scientific, the social and the economic demands, and one can easily see that this will vary from place to place, according to the actual circumstances which exist: in that case one has the paradox of several best farmings.

But although a study of scale in farming cannot result in any universal ideal scale being put into practice, nor decide the largely moral problem of what is the 'best' farming, yet it is well worth while noticing the effects of scale in agriculture as an abstract question by itself, because they are not generally appreciated, and the confusion of thought that results makes a fair critical comparison of different types of farming an impossibility.

The differences which result generally in practice in farming large estates measured in hundreds of acres and the cultivation of small holdings of a few acres have been closely studied by numerous economists. A great number of differences have been suggested at one time or another, but most of them are so controversial and uncertain that one cannot rely on them and they must be put aside: there are, however, a few differences which almost all writers now agree do generally occur. Relatively large-scale farming gives less produce, less expenses and less capital invested per acre, with a small number of men whose individual output is high: small scale farming gives a greater amount of produce per acre with greater expenses and capital; it employs more men, but their individual output is less. All these statements are commonly summarised by saying that small-scale farming is generally more intensive than large scale: estate farming usually means low farming, the small scale generally gives high farming.

With these statements before one, it soon becomes clear how extremely difficult it is if one wants to choose which is the better even in any particular case, because advantage in one direction is tied to a disadvantage in another. For instance, from the point of view of individual economic profit there is no doubt that large scale is best, but then it would only benefit a few and it would be wasteful of land. Or again from the point of view of raising most produce in a country there is no doubt that small scale is best. It benefits mankind because it makes the most of land, which is a limited natural resource: it aggrandises the usufruct for mankind, but then it needs more money, and though many men would benefit, each man's profit would be small. So one cannot pronounce a simple judgment: what is lost on the swings is gained on the roundabouts, and all one can do is to try to reach a compromise between all these conflicting interests; so one finds large- and small-scale farming existing in different parts of the world, often even side by side in the same country.

But although these differences which result from large and small scales in farming have been pointed out by economists almost unanimously for more than a century, they seem to have failed signally to carry conviction. In spite of the fact that it is so difficult to choose between large- and small-scale farming,

the fact remains that if asked to give an opinion, nine out of ten people would vote for large-scale extensive farming, and if they were pressed to give a reason for such a positive reply to such a complicated and difficult question they would probably say that the benefits of an increase of scale in farming have actually been experienced in the history of farming, at least in England, if not always, and that they see no reason why this should not continue to be so in the future ; on the other hand, that they can see no possibilities whatever in peasant farming and that it is bound to die out. Yet in spite of all confident predictions for many years now small-scale farming obstinately refuses to die out ; it steadily continues to flourish before our very eyes. When real practice and imagined theory are so incongruous, would it not be well to summon enough courage to admit that there may be some sort of psychological phobia of peasantry and determine honestly to bring the facts from a subconscious conventionalism to a critical rationalism ? As the studied statements of economists seem unable to correct this common false impression, it is necessary to take up a more aggressive position and try to refute it point by point.

From the British point of view it is not difficult to understand why large-scale farming is generally favoured. It is not so much because of a positive fondness for the large scale in agriculture, but rather because of an unconscious lack of knowledge about experience elsewhere. The type of farming in the Mother Country has naturally tended to reproduce itself in the Empire at large, and in the temperate countries at least this has nearly always met with conditions that are suitable for it and where it has proved a success. The British have rarely met with conditions which dictate small-scale farming in temperate countries (though often in backward tropical countries), with the result that first hand British experience of the *petite culture* is extremely meagre. Foreign experience is naturally not so familiar and generally carries far less weight.

The general tendency to favour the large scale in agriculture may be questioned in at least three ways. In the first place it may be perhaps an unwarranted assumption that the general increasing scale of farming that has gone on in England at intervals ever since the Norman Conquest (but which appears to have ceased during the last fifty years) has always been in

response to purely agricultural needs : secondly, many are influenced, perhaps unconsciously, by a very unsuitable analogy derived from the use of machinery in industry and especially the industrial process known as mass production ; and thirdly, there is very little first-hand British experience of what modern peasant farming has done and is actually doing abroad.

The first common argument in favour of the large scale in agriculture is that through the course of history farms have increased in size and economic advantage has resulted. The general idea is clear as a whole, but it seems a little vague and elusive when one comes to examine it critically. One might state the case fairly and rather more definitely by saying that by an increased scale by means of manor farming it was possible to break away from the deadly conservatism of champion farming to give play to initiative ; then by further enclosures it was possible to take advantage of economic opportunities in farming for cash profit, and finally it is implied that the landlords gave a leadership to agricultural progress.

All these points are obviously bound up with the position of the landowner, and through him to the landlord, the manor and ultimately the feudal system. It is therefore necessary to go back to the early days of agriculture in order to trace the origin and development of this hierarchy, and appreciate their true position.

All over Western Europe and large parts of Asia, if not indeed over the whole world, it seems that when people settled down to farming the three themes in agriculture were harmonised for centuries in simple community farming, of which champion farming or arable mark is a type. But simultaneously another old factor was introduced into the complexity of agriculture : these farming settlements, beginning to collect wealth, naturally attracted the unwelcome attention of neighbouring nomadic peoples, who began to attack the open, unprotected communities and prey upon them. In Western Europe, for example, the northern Sea Kings were especially wild and daring, and for several centuries all farming communities on the boundaries of the North Sea were liable to terrible sea raids carried out by the fearless and utterly ruthless Vikings. They attacked with lightning suddenness and awful ferocity and were back in their ships with the spoil before a strong enough force could be

mustered to fight them. At last in Normandy a system was perfected to deal with these raids. Certain chiefs were charged solely with the duty of maintaining, by means of the contributions of all in the neighbourhood, a constantly available and rapidly movable force to engage the raiders the moment they appeared. Thus a form of feudalism originated and was so successful that the Normans soon realised the immense power and efficiency of their defensive organisation and began to consider its possibilities as an offensive weapon. In England military organisation was not nearly so advanced, and the defeat of the English at Hastings was absolute: a Norman ruling caste was superimposed upon the utterly subject English, and Norman feudalism took on a yet more sinister aspect in the repression of a conquered native population. From the first the manor in England was primarily a military and only secondarily an agricultural organisation: indeed, it is clear that the Normans valued military strength and field sports far above any agricultural potentialities, for they made forests by destroying many villages and laid waste whole counties in the "harrying of the North" in order to diminish the liability to invasion by Scottish peoples.

Such is the commonly accepted history of English Feudalism, but of course feudalism is older than the Norman Conquest and is not confined to France and England. The English experience is only a type of a much more general trend of development. Some have traced the feudalism of Western Europe back to the Roman villa, but even this is not satisfactory, for feudalism existed in far-off India, and there are even crude types of feudalism in West Africa, generally where the open Sudan country borders upon the West Coast.

However, it is not necessary to study the many theories of the development of feudalism from simple farming communities. The details will vary in different parts of the world, but in principle it is obvious that feudalism resulted from the interaction of agriculture and war, and the greater the influence of war the more strongly marked feudalism became. Thus the lord of the manor, or temporal land lord originated. He was not an agricultural creation, but a translated military necessity: agriculture in the early stages of subsistence farming tended distinctly to democracy, but war demands a direct leadership

and subordination ; thus it must always result in the establishment of a hierarchy : this hierarchy, which was designed to protect agriculture, became so powerful and overgrown that it imposed its organisation upon farming. The close correlation of landlordism and war can be traced in many instances. Thus border marches all over the world are held in large estates to ensure protection, and are quite clearly the result of the conquest of village communities by foreigners or their subordination to military needs.

The landlord, then, was a result of a compromise between the demands of agriculture and war, usually with war gradually predominating : he was necessary for war, but he does not seem to have been necessary for agriculture : he may and indeed he has sometimes performed useful agricultural functions, but he was not designed or desired to do this : his military necessity and origin are clear, his agricultural services were secondary and largely fortuitous. Indeed, one must agree that such was the case in the early days of feudalism, but one might suggest that perhaps the lord of the manor, in spite of his unfortunate military origin, did in course of time alter and adapt himself so much that he came to perform a necessary agricultural function. It is therefore worth while to follow his history in England to see whether this happened.

When England settled down to peace and security after the Norman invasion it became possible once more to accumulate wealth, and a flourishing wool trade sprung up : farming for subsistence began to change to farming for money profits. In those days all wealth depended upon control of the land, and the arbitrary methods of the Norman lords in war were soon transferred to peace. By the statutes of Morton and Westminster the aggrandisement of the manor began at the expense of the subject common people. The manor lords were enabled to enclose common land, provided that there was a sufficiency of pasture for the common people's livestock then existing, and it was ruled that the hitherto untilled common land was the "lord's waste" which lay waiting for his use until he felt disposed to till it. The rather ill-defined rights of the common people in land began to be encroached upon and transferred and collected into the lands of a few, and this process of enclosure continued in fits and starts for seven centuries. Again

there is nothing uniquely British either in enclosure or in its effects: it is an old story, well known even in the time of Isaiah.[1]

The greatest incentive to enclosure at first was sheep farming for wool, a type of farming easily carried out on a large scale, and as a result of enclosure a valuable wool trade was quickly developed. But this wealth found its way to a few landlords, who thus became even more powerful and widened a pre-existing social gap, and not to the bulk of the people. But there is also no doubt that land was used far less efficiently, its potentialities were neglected and the common people suffered greatly: in the language of the day there was much "letting down of houses of husbandry". The troubles of the time set forth by Thomas More, and very many others, are possibly exaggerated, as some suppose, but there is no doubt that the times were badly out of joint. Later on when the manor began to decay, the landlord was often bought out and replaced by the landowner, but enclosure and its results continued in much the same way. There was little attempt to harmonise economic demands with social justice, because the temporal lords derived from a military hierarchy had the power to impose additional hardships in order to meet economic demands, and it was easiest to let the weakest part of the social structure carry additional burdens. Enclosures undoubtedly led to greater wealth, at least for a time and for a few, but against this wealth it is only fair to balance the hardships and poverty that resulted from them; the waste of land and the waste of labour, the depression of the serfs that followed the Statute of Labourers, the loss of life in agrarian revolts and all the social ills described by Latimer, More and many others. Another wave of enclosures occurred in the eighteenth and early nineteenth century, and

[1] Isaiah v. 8. Woe unto them that join house to house, that lay field to field, till there be no place, that they may be placed alone in the midst of the land.

9. In mine ears said the Lord of hosts, of a truth many houses shall be desolate, even great and fair, without inhabitant.

10. Yea, ten acres of vineyard shall yield one bath, and the seed of an homer shall yield an ephah.

Commentators on the Bible are agreed that verse 8 refers to enclosure, but they consider verse 10 to refer more to intervention of the Almighty than to a far-seeing perception of the effects on the national economy. See also Micah ii. 2.

in their train much rural depopulation and the very extensive and serious Poor Law troubles. But these later enclosures certainly led to undoubted progress in the practice of agriculture by freeing the farmers from the intolerable restrictions of open field farming and allowing them to experiment.

One sees clearly in history the economic advantages that resulted from enclosure on the part of landlords, and one has to admit equally the social disadvantages; but was it not all inevitable? Are they not, even now, inseparable and inevitable? A century ago one could have answered in the affirmative without much fear of contradiction; now one can not only suggest that it was not inevitable, but one can already point to experience as a proof. If, when the economic demands of farming became pressing, the science and social organisation of agriculture had been equally well studied and searched for new methods, there might have been an economic advance without corresponding social depression. It was in this way that so many continental countries advanced enough economically to overcome the shock of cheap wheat from abroad in the middle of the nineteenth century, without straining the social structure, and as a balance to English experience one may well consider the course of events in Denmark. There was hardly any enclosure there: this was partly because the prevalent type of profit farming was not sheep grazing but stall-feeding bullocks, which did not demand enclosures so urgently: doubtless it was also partly due to the fact that the Danish lords were not powerful foreigners among the people, but were of the same race as the peasants, but perhaps it was mostly because it was not to the interest of the king that land should be enclosed. It was to the interest of the nobles themselves to enclose, and they began to do so, but the king, who looked to the interest of the whole realm, and especially to its strength in men and horses, saw that it led to depopulation, and had the will and the power to prevent enclosures. Thus the old village organisation and open common-field farming continued until as late as 1781, when peasant liberation movements were sweeping over Europe. Then the whole matter of enclosure was dealt with in a sound and properly regulated way. The common land was divided up among the peasants and parcelled out after these reforms into a multitude of small enclosed farms with their owners

living on them. In Denmark then we have a country which has scarcely experienced the enclosing landlord and yet has one of the most progressive and profitable agricultures in the world. The increasing scale of agriculture in England cannot therefore be entirely the result of the unavoidable demands of the science and economics of agriculture ; it results largely from the one-sided interest of the enclosing landlord who was born of war, not of agriculture ; he has not been essential to agriculture and many countries have done quite as well, and nowadays even better, without him.

There remains the conviction of the landlord as an agricultural leader, and what has gone before makes the question easier to deal with. To begin with he was not a natural leader, because he was imposed on agriculture by war : later on, when he may perhaps have outgrown this disadvantage he was no more natural, in the sense that he was not raised up by farmers as a leader : he held his position, not in virtue of agricultural expertness, but in virtue of his ownership of land which was either left to him, or bought by him. It is just as if an artist were to bequeath to his son his colours, his apparatus, his studio and the last of his pictures : the mere possession of the tools of art would not ensure that he and his sons after him became leading artists any more than the possession of land would ensure a man's becoming a leader of farming. Both would have a valuable tradition (if they had cared to absorb it), but this would not carry them over more than a generation unless they qualified themselves by study and practice. The landlords did not raise themselves to leadership, they were just there ; and as one might expect from any other group of peoples, some were good and some were bad : some led to good agriculture, some to bad. They were, on the whole, neutral. Naturally improvements in farming were introduced through them because they had the land, for one cannot demonstrate improvements in farming without land : they equally hindered agriculture by refusing to introduce improvements. At one fortunate period at least it was fashionable to be an improving landlord, but for one landlord leader in farming like Lord Townshend, Coke of Holkham, and Lord Halifax of Abbs Court, there were innumerable landlords who stood idly by, and the inventions of farming have rarely been due to landlords : the

should bring about similar changes. It would be an exaggeration to say that people expect improvements of quite the same order as those in industry now, because they have had a little experience in machines on the farm, and they are conscious of a vague disappointment when they think of them, though usually they are unable to realise what has gone wrong. An example will, perhaps, make the point clearer. A tinsmith, for instance, might be able to make one tin in the course of an hour, but if this tinsmith were supplied with a tin-making machine he would probably be able to make one hundred tins in an hour, and tins could be produced one hundred times faster than they were: if the introduction of machinery to farming were accompanied by an improvement of the same order, then we ought to be able to raise a wheat crop in two days! But we know perfectly well that even if we use every conceivable resource we cannot shorten the period for producing a wheat crop by more than a few days. The mistake is that the difference between industry and agriculture has not been fully apprciated: we have overlooked or at least minimised the fact that agriculture deals with living things. We have lost sight of the Earth Goddess. Machinery can only be used indirectly and not directly in the case of growing plants or animals, and we forget that in agriculture we are also concerned with those inscrutable vitalistic forces that move under our hand, as it were, and with which the primitive African agriculturalist has been so impressed that he has personified them in his Earth Goddess. The man who imagines he can straightway apply his clear-cut industrial principles to agriculture soon finds himself in much the same awkward position as Alice in Wonderland playing croquet with flamingoes for mallets, hedgehogs for balls and the king's soldiers for hoops, a simile of which Engledow and Yule were painfully reminded when they discussed the apparently simple problem of finding whether one variety of a plant yields more than another!

Putting aside confusing industrial analogies one can see that machinery in agriculture has two distinct aspects: firstly, the use of machinery in the cultivation of the growing, living plant, and secondly, the use of machinery in treating the actual harvest of dead or apparently lifeless crop. The fundamental peculiarity that has to be faced in rearing plants or animals is

the fact that it "takes time". Whatever we may do and however much we are prepared to spend, a field of wheat or a litter of pigs obstinately persist in "taking time" before they can become grain or pork, and our helpless dependence upon a biological time factor affects the question of machinery for cultivation fundamentally. In making cricket bats, or good furniture, machinery is of limited use because the main cost of the finished articles is due to a process with a time factor which cannot be hastened—the maturing of the wood—and the small saving in time by shaping the wood by machinery would represent only the minutest saving on the cost of the whole article and would not compensate for the overhead charges of the seldom-used machinery. So it is with machinery used in cultivating land: many farming operations can be carried out much more cheaply by machinery, but these operations are only a small part of the cost of production, so that the resulting improvement is quite small: and unless such machinery can be used frequently (which indeed is seldom the case) the overhead charges soon swallow up any advantage.

Some farm machinery, such as reapers, do tedious work so quickly and so well that they can support heavy overhead charges, and so are generally used: but machine cultivation is often not so good in quality as hand or horse cultivation, and there are some operations, such as singling root crops or picking cotton, that no machine can yet do properly. Then again mechanical operations are only a part of plant or animal cultivation; there are chemical and biological aspects which have to be considered: crops must be rotated, fertilizers must be added and livestock must be kept if the land is to be well employed, and livestock must have human care: moreover, one cannot lay down a definite programme of work in advance on a farm because it depends so much on the weather. All this makes farming a very complicated business which calls for a good deal of human attention in any case, and large-scale farming at high intensity demands such tremendous organisation that it is almost impossible at present to carry it on. Thus in England it will be actually better to work a thousand acres as two farms, each with its directing bailiff, than to attempt to work the thousand acres as a unit. Thoroughgoing large-scale machine farming in practice usually means a loss of efficiency

in the employment of land : industrially it would be like lowering the cost of production of tins still further by using a machine that makes 150 tins in an hour but worked so badly that it ruined a great deal of tin plate : the lower cost of production would soon be balanced by wasted tinplate ; or agriculturally, the cheap working of the land would not yield enough crops to pay for the cost of owning the land.[1]

Machinery for cultivation, then, does not give anything like the effect it gives in industry. The use of machinery in industry means an enormous lowering in price and no waste of raw material : the use of machines for cultivating land at present usually means a comparatively small lowering in cost and a waste of natural resource—the usufruct of land. It is only possible where land is so cheap that one can afford to be extravagant with it. Production on a piece of land is only speeded up when the type of agriculture becomes more intense than it was. Thus the change from cereal farming to mixed farming resulted in a great speeding up of production by producing more of all crops in the same time : new methods of manuring grass land with cheap synthetic nitrogen compounds may also be a change of this order, and these two radical changes in methods of farming are in some degree comparable with the introduction of machinery into industry, though on a very much more modest scale, but they are rather costly in working capital, and the law of diminishing returns soon begins to come into operation.

But turning away from the actual cultivation of the fields, which is the real agriculture, and considering the granary, the slaughter house, the dairy or the fruit packing-shed, one finds a very different position in the possibilities of machinery. Now one is handling more or less stable, inanimate material that can be shovelled into carts or poured into tins without harm, and which is much more akin to the industrialist's raw materials. The milling of grain, the making of butter or the curing of bacon, the grading and packing of fruit and the extraction of sugar from beets, are all very simple and eminently controllable chemical or physical operations which can be done very effi-

[1] Henry Ford, in his book *Today and Tomorrow*, describes his own very original and interesting experiments in large-scale machine farming, but the conditions under which he was working will very rarely be reproduced elsewhere.

ently with machinery, working more or less under factory conditions. Indeed, machinery will give a better product, with less waste and at very much less cost than if these operations were carried out by hand. Generally speaking there is so much to be gained in the mass treatment of dead farm produce by machinery that one is tempted to turn the argument about and suggest a large scale in farming so as to reap this benefit of lowered costs resulting from mass treatment to the fullest extent. But unfortunately there is a fallacy here: it is not simply a case of trying to obtain a larger and still larger scale, but of trying to attain an economic manufacturing unit for processing every different crop of produce that the farmer has to grow, for the farmer, unlike most industrialists, must nearly always produce more than one kind of article. Thus it would certainly pay a fairly large estate to have its own machine-operated dairy: the same estate could not support a bacon curing factory, and it would certainly have to be very much larger than it usually is nowadays before it could mill its own grain economically, while an estate large enough to treat sugar beets by machinery would have to be immense. The industrialist might try to get over this difficulty by advising the farmer to grow only one crop, and arrange that the area of land he farms will give just enough produce to make a factory of economic size possible; but the farmer is employing land, and it is only in the case of perennial crops, or in abnormal conditions that he can employ his land efficiently with only one crop. One must face the unfortunate fact that an efficient producing unit for each kind of crop does not coincide, and cannot at present be made to coincide, with the different efficient manufacturing units demanded by each kind of crop. This has led to a separation of the functions of producing farm material, such as corn, milk, or sugar beets, and of processing them into flour, butter and sugar: the village mill has gone, the private dairy is rare, while the sugar beet central factory has never been privately owned. It is true that machinery has led to a greater economic efficiency in turning out finished farm produce, but it is equally true to say that it is the owner of the factory and not the farmer who has actually reaped this benefit: and, unless special precautions are taken and certain methods not commonly used at present are adopted, a larger scale in treating farm produce will

One may well enquire what has caused, and made so successful the "silent revolution" in peasant agriculture. The main factor has been an entirely new organisation of this industry brought about by the farmers themselves by combination or syndication, more especially by the rather special technique of agricultural co-operation which will be discussed in detail later on. The results that have been achieved by the combination of small farmers for fostering their common ends have, in fact, been of such a scale and of such a wide application that they have raised the whole status of peasant agriculture, so that co-operation in small farming instead of being merely desirable is gradually becoming absolutely essential. Membership of a co-operative society generally means a very great deal more to a smallholder than cheap transport, cheap catering and membership of a social club mean to a city worker, great though those advantages are. By suitable forms of combination, varying slightly in detail according to the circumstances, the smallholder in Europe is in fact able to command many of the resources that the large-scale farmer can draw upon, and enjoy a great many advantages that are at present beyond the range of the large farmer. Such, for example, as the making, packing, exporting and direct selling of butter and cheese: the curing, export and direct sale of bacon: scientific control, selection and breeding of a farmer's livestock: the use of expensive land machinery: money facilities: expensive soil improvements such as draining, marling and reclaiming barren land, all of which may be simultaneously available to the humblest smallholder for what they actually cost on a wholesale scale. It is by a carefully built-up system of combination that the smallholder has become a man with tremendous resources at his call. The farmer under these conditions is free to devote his whole time to his real function of raising his crops or his stock, and, if he wishes, he may combine with his neighbours to the exact extent necessary to give an economic manufacturing unit varying in size for each of his separate products, and, what is more, he combines with his neighbours on methods which ensure that he himself reaps the very utmost profit from the processing factories, so that these profits are not swallowed up by the industrialist. It is the new organisation of agriculture which was made by the farmers acting in concert and having the

interests of farmers always at heart that has revolutionised peasant farming in Europe to-day.

This may seem an exaggeration, but if European agriculture, for instance, is critically examined one has to admit that peasant agriculture nowadays compares very favourably with large-scale agriculture. As an example, surely it is a great feat that a square mile is able to support one hundred and fifty persons at a standard of living scarcely ever below that of the skilled artisan, upon agriculture alone, as Denmark does to-day. And as a more specific test of farming one may compare the results of the applied science of agriculture. The very highest art in most branches of farming is usually found among individuals in large-scale countries, but the general average is low. The highest general level of yields is almost invariably found in peasant countries. One might in particular compare the large-scale agriculture of Britain with the small-scale farming of Belgium, Holland and Denmark during the last fifty years, taking the three tests of total arable area, average yield of crops, and amount of livestock carried. During this period the arable area in Britain has decreased severely, while that of the three other countries as a whole has increased slightly: the average yield of main crops in Britain has been stationary or has improved very slightly indeed, while in the others it has increased from one-fifth to one-half as much again: the total amount of livestock carried has decreased very slightly in Britain during the last fifty years and has increased by 34 per cent in Belgium, 44 per cent in Holland and 70 per cent in Denmark.[1] The net result of all three tests gives some con-

[1] *Agricultural Tribunal of Investigation*, Cmd. 2145 (1924), pp. 19–32. The following table is abstracted for convenience, but the context should be read for a fully critical comparison.

AVERAGE YIELD OF CROPS PER ACRE IN THE FOLLOWING PERIODS

		Belgium.		*Holland.*		*Denmark.*		*Gt. Britain.*	
		1875–78.	*1911–13.*	*1871–74.*	*1919.*	*1875–78.*	*1919.*	*1886–89.*	*1919–22.*
Wheat	(cwts)	12.0	20.7	13.4	20.7	16.0	23.8	15.7	17.2
Barley	,,	14.9	22.0	18.1	21.0	12.0	18.4	14.3	14.6
Oats	,,	13.3	18.4	15.1	15.0	10.1	13.9	13.0	13.0
Rye	,,	12.1	17.6	10.1	15.0	13.1	10.9	—	—
Potatoes	(tons)	6.4	7.8	3.8	6.4	6.0	6.0	5.9	6.2

ception of the magnitude of the "silent revolution" which has occurred in peasant farming during the last half century in these three countries: one can no longer deny that peasant agriculture can be, and is, both efficient and progressive.

However, one is not trying now to show whether large or small-scale farming in temperate countries is the better, any more than one could hope to show whether it is always better to build blocks of flats rather than multitudes of small houses, because the more pressing considerations, principally the density of population, decide the matter already: but one must certainly conclude that there is an unfair prejudice in favour of large-scale farming. People err in thinking that the present large-scale methods have come about entirely in response to the needs of the art of agriculture itself. We forget that agriculture deals with living things to which machinery can only be indirectly applied in a few instances, and even then inefficiently, except in processing farm products. Most people are not fully aware of present achievements in small-scale farming. Under European conditions of population, indeed, it seems very probable that a stronger case could be made out for small-scale farming as best meeting the chief needs of these countries in general than could be made out on the evidence for large scale, but it is not necessary to push the point so far: let us be more tolerant and look upon large or small scale in agriculture as an open question and agree to credit each with having possibilities and difficulties within it.

With this held firmly in mind we may turn away from the temperate regions to the tropics, where the question of large- or small-scale farming is complicated still farther. If the type of farming were determined mostly upon density of population the tropics would be given up to peasant farming, for nearly all of them are densely populated, except certain parts of Africa. The problem seems altered altogether by the fact that these countries are usually occupied by primitive or backward peoples, and it is the quality, quite as much as the quantity, of these peoples that has influenced the usual present solution of the problem. When Europeans first came to these countries in the days before transport was well developed, they were content to trade with the natives directly for such precious materials as peacocks, gold and ivory, the spices of the East, or the

"Grains of Paradise" in West Africa, but when the cost of transport decreased these luxuries began to become necessities, and industrial Europe craved for new needs: cotton, sugar, tea, coffee and cocoa were before long within the reach of the humblest household. The traders in the tropics, looking at these backward peoples with their apparent laziness, their irritatingly casual methods of growing crops and their apparent lack of ambition in taking advantage of these crying economic opportunities found it difficult to imagine how this lucrative trade could be developed unless they were prepared to grow the plants themselves. The European saw his own requirements standing out clearly, and he coped with the situation very soon by acquiring land and labour and starting plantations of the crops he wanted.

It was an obvious view and a facile way out of the difficulty, but unfortunately it was a one-sided view because it only took account of export crops in the system of farming. It is as if we in England were to start plantations of flax, sugar beet and apples and utterly neglected food crops, fodder crops and manurial crops. So plantation countries like Malaya export their rubber and import foodstuffs at considerable cost: this indeed may not perhaps always be a disadvantage: it may not always be just carrying coals to Newcastle, but it certainly is carrying coals to the site of a potential colliery, and if these feeding stuffs are grown in temperate countries it is probably unsound, because the tropics are usually better places for producing food than the temperate. One ought not to emphasise the point too strongly because the position may sometimes arise even in countries which have no plantations, such as the Gold Coast which imports great quantities of food, but one must remember this tendency of plantations to develop agriculture in a lop-sided fashion with consequences of which we are largely unaware, and it seems casual and even foolish to act on the principle of taking care of the export crops and leaving the food crops to take care of themselves.

But, to do the planters justice, it was not just the selfishness of the European for his own needs that caused him to take up the plantation system so readily: many of the crops he wanted to grow could not be exported in the raw state, but needed some further treatment: sugar-cane had to be crushed and extracted,

rubber latex needed coagulation and curing, and the leaves of the tea bush had to be carefully dried and fermented. If these processes were to be carried out thoroughly, consistently, and cheaply, large-scale factory treatment was inevitable, and the factory itself could only prove economically possible when it had a guaranteed supply of raw material to keep it working constantly enough to justify its heavy overhead charges. So the expensive but thoroughly efficient factory needed constant feeding with raw material to pay its way, and the large plantation guaranteed it.

These two needs of growing special cash crops so as to take advantage of new opportunities, and of being able to use efficient machinery, are arguments which led to large-scale farming in England with, for example, the wool trade, but as we have seen, proceeding to a larger scale by the development of estates is not the only and inevitable solution of these difficulties, so that to this extent the tropical problem of scale in farming does not differ from the temperate. But there is also a peculiar reason in the tropics that leads Europeans to the large-scale plantations.

The general argument runs rather in this way. If you want to cultivate tropical plants really well would it not be best to collect a few natives at low rates of pay on a plantation where one has complete control of the land and let an expert European not only show them what must be done, but also insist and see that it is done by direct disciplinary action? Then you can be quite sure that the plants will be properly grown, that your native labourers see that your agriculture is better than theirs and will be made into good agriculturalists, and that they ought then to be good farmers by themselves and help others in the country to be good farmers by their influence when they leave the plantation. On the face of it this seems very sound, supposing of course there are no difficulties in the way of obtaining land and cheap labour, but as soon as it is studied critically fallacies begin to appear. To begin with, unskilled labour doing semi-skilled work under direct European supervision is wasteful and expensive; the fallacy that it is cheap dies very hard, even in the face of experience: for the most short-sighted plantation overseer sees that he must make his labour as efficient as he can and refutes this old argument: he must demand a certain

amount of care and skill from all his labour, and when he has trained them to this he will certainly be optimistic if he expects indefinitely to pay his carefully trained men at the same rate as the raw recruit who works by his side. Then it is true that the labourers can be shown what to do and be made to do it, but this will only train them to do routine operations which they will not be interested in or understand, unless the overseer takes the trouble to explain why he wants them done and educates them to grasp the principles. He can certainly stop their pay and otherwise discipline them. But he cannot train many natives in this way, because he naturally does not want to turn his plantation into a training school, but wants to keep his good labourers. So if the plantation is efficient, there will be few labourers to pass out and spread his new and efficient type of practical agriculture in the country at large. But the gravest criticism of all is that these labourers cannot themselves practise or teach others to practise on their own farms most of what they have learnt on the estates. It is a great error to suppose that plantation methods can be applied, or indeed are at all suitable, for small peasant farms. Obviously a labourer on a rubber or tea plantation would be ruined if he tried to produce these articles as he had seen it done on the estate when he went back to his small holding. This is an extreme case, but generally it will happen that methods which are good on a large scale are correspondingly bad on a small scale. It is rather like asking a builder of city skyscrapers to take his experience back to his village and build cottages there. If the plantation labourer were apprenticed to the European under similar conditions to those in his village then he would learn something that he could apply: but as it is his plantation experience is unsuitable.

It goes against the grain to accept these criticisms of the plantation as an instrument of general agricultural progress, because it seems like denying a more general argument based on sound common sense. One sees native troops, for instance, clean, smart, healthy, mentally alert and with a strong sense of discipline: one cannot but be struck with how well they compare with the ordinary civilian native: it makes one wish all natives had such salutary training, and one pictures what a good influence they will have in the country when they are discharged. Yet consider how much it has cost to train them,

how few of them there can be among the millions of population, and how little their technical knowledge and training will help them or others in civil life. In Europe the discharged soldier was notoriously a bad character, in spite of all the severe disciplinary training he had had, until he was educated for civil occupations.

What seems like an emphatic, sound, common-sense judgment will not bear examination economically or agriculturally, and experience forces one to admit it. Plantations have the disadvantage of developing the agriculture of a country in a lopsided way because they have regard only to a few of the crops, and this may lead to an inefficient system of farming and peculiar economic difficulties which are difficult to correct : the view is the narrow one of exploiting a series of crops rather than the broader view of exploiting the land of the country by the development of a system of agriculture adapted to the land. On the other hand plantations possess the great advantage of practising the very best methods in growing export crops : the land is treated in the best possible way, the plants are carefully tended, and pests and diseases are controlled as far as is humanly possible. There is little delay in applying the results of research and the agriculture of export crops, at least, is certainly very progressive. The natives working on the plantations become more skilled, but when all is said we have to admit that this has been achieved by moral and mental persuasion and not by physical force, and that this educative function is not necessarily confined to plantation overseers, a point that needs further examination. The apprenticeship to Europeans on plantations is not a practical way of introducing suitable agricultural improvement in the country generally. Finally, the plantation by guaranteeing a constant supply of raw material makes possible the establishment of machinery, not so much for cultivation, but for after-treatment of the perishable field product, and gives a more uniform and better quality product. Later on the point must be debated whether factories for treating agricultural produce must always have a neighbouring estate or whether some other method can make this vast improvement available. But plantations are very expensive with heavy overhead charges of direct European supervision, the wages bill, and all the expenses necessary in a labour camp.

This fact is gradually becoming evident even in countries where labour is cheap and European supervision simpler and less costly than in many parts of the tropics. In Malaya, for instance, the heavy overhead charges which have to be borne by a rubber plantation have been commented upon.[1] From the economic aspect, even, the plantation is not an unmixed blessing, a fact that is daily becoming more obvious.

But experience is better than argument. Tropical agriculture reminds one of the tea and coffee estates of Ceylon and Assam, or the sugar and rubber plantations of the West Indies and Malaya, or the old cotton plantations of America: it is only fair that it should also remind us of the newer developments of cotton growing in Uganda and many other peasant countries, or of the cocoa industry of the Gold Coast, or of Java, where the most remarkable progress has been made in peasant agriculture.[2] One can no longer deny possibilities in small-scale agriculture among backward peoples in the tropics, although they are not at present so spectacular as in temperate countries. It is also interesting to notice that where the crop needs little treatment before export, such as cotton and cocoa, peasant agriculture has already threatened plantations, while in crops which need preparation by expensive machinery, such as rubber, tea, and sugar, it has not as yet made so much headway.

However, one must not lose sight of the starting-point of this digression: large scale or small scale in farming cannot be treated as a purely scientific, or economic, or social problem, but all three aspects are combined and have to be given due weight before a decision can be reached. As an abstract problem one could conclude that there is not much to choose between them in Europe, but the balance is now in favour of small scale, while in the tropics the plantation leads with some crops, the peasant with others.

There is no size of farm that is universally the best, and within reasonable limits both large and small farms have so many good and bad points that it is difficult to judge between them, but neither of them is an obvious royal road to prosperous farming: each way has its easy stretches and its hard pulls.

[1] Ormsby-Gore, Hon. W., *Tropical Agriculture in Malaya, Ceylon and Java*, United Empire, Aug., 1928. Since that date, however, overhead charges for Malayan plantations have been greatly reduced.

[2] Ormsby-Gore, Hon. W., *loc. cit.*

CHAPTER V

THE FULL SCORE FUGUE AND ITS ALTERNATIVES: PLANTER, METAYER AND SMALL GROWER

WE have now listened to each of the three component themes of West Coast agriculture, and it is now time to play over the full score fugue in our minds with the themes all woven together and hear the whole broad harmonious effect. Or, to look at it another way, we have been steadily climbing up a hill of facts and arguments from a valley of dim matters of the past until we have reached the peak of the present, and it will be convenient to stop here for a little to take stock of our present position before trying to make out the misty prospect of the future that now lies before us.

We have followed the development of the scientific, economic and social components and tried to keep an open mind about scale in farming, because it has not so great an influence nowadays as is often imagined, so that the chief evidence now lies open for inspection, the mind is not unduly prejudiced or distracted, and it ought to be possible to arrive at a fair independent judgment. Having then followed out the agricultural fugue continuously right up to the present, let us cease to think of it dynamically, but imagine it fixed and static as a present-day agricultural organisation and then examine it critically. What sort of an agricultural organisation is there at present and how far does it fit present-day conditions and needs? Is it so ill-adapted and bad that its future outlook is hopeless and that it will all have to be scrapped and altered? Or is the present agricultural organisation reasonably successful and good enough to be carried on and developed gradually into something better?

It is not very difficult to decide what to call the system of agriculture that exists on the West Coast at present; there are multitudes of small farmers holding their land so securely that

in European language we might say they 'owned' it, either in communal groups, or by families, or individually. The agricultural organisation is clearly a crude kind of small farming for subsistence, but where it is most highly developed it now approaches the peasant proprietorship system of farming that is common in Europe. On the West Coast this agricultural organisation is usually called peasant farming, but this is not altogether a perfect description, because the West African at present can only keep a few goats, sheep, or chickens owing to the nature of the country and the ravages of the tsetse fly on the larger livestock, so he is not what we ordinarily imply by a farmer. Then again he only cultivates a fifth or a tenth as much land as the European peasant. Some prefer to call this type of agriculture "garden culture", but it is a more serious and practical affair than this implies, and perhaps we can best correct our ideas by sometimes describing these peasant farmers on the West Coast as "small growers".

On the whole nobody would deny that West Coast agriculture has done fairly well in the past, while the Gold Coast cocoa trade stands out as a notable achievement. It is, however, with the actual present and the immediate future that most of us are concerned, and from this point of view probably nobody is quite at ease: many people, looking at the increasing competition that is bound to come very soon, and in particular at the menace of Eastern competition in oil palm produce, are thoroughly alarmed. And, indeed, taking a broad view, one must admit there are very reasonable grounds for anxiety that the present agricultural organisation is not likely to be at all adequate for future needs, and that if it is just left to develop at its present rate it will be unfitted to compete.

The design of the present agricultural organisation has been moulded by the three themes acting together, while the scale of farming has been fixed by the density of population and the manner in which land is held among the people. The density of population is a fairly stable factor, and of all other institutions on the West Coast few are so deeply founded or so firmly defended as the land tenure system, and this being the case agricultural organisation seems very likely to remain unchanged in the future, and it therefore seems idle to speculate upon the results which other types of agricultural organisation might

have on West Coast farming. This is one view which might be expressed like this: "Why bother about agricultural organisation at all: will not the various forces themselves act and re-act upon each other and produce in the end a naturally evolved agricultural organism?" But others, discontented with the present rather poor farming and being alarmed for the future, take the opposite view and want to introduce great changes in order to ensure the apparently greater possibilities which may be held out by other types of agricultural organisation.

These are both extreme views and the truth seems to be midway between them. It is exceedingly doubtful whether it would be practicable to change the type of agricultural organisation on the Coast altogether even in the course of many years. At the same time the agricultural fugue is not entirely beyond human control: it may not be possible to change the type altogether, but it may be possible to make it a good or a bad type. No amount of care in breeding donkeys will give horses, yet it will certainly give good donkeys and bad donkeys. But however this may be, we can best judge for ourselves by following out what changes in types of agricultural organisation would imply.

It is frequently assumed that the only alternative to the impecunious peasant farming of small growers in the tropics of to-day is the heavily capitalised plantation, but this is a great mistake, for it is possible to have agricultural organisations that are intermediate and rely upon a mass of small capitals. The ingenuity of man has no doubt hit upon many different types of agricultural organisation at one time or another, but there are only three that are of importance nowadays. The first is a system of large estates, managers, and landless labourers, a large capital enterprise: the second system is composed of small holdings and peasants or small growers, a mass of small capital enterprises, while the third, the metayer system, is a compromise between the first two. It is also possible, of course, to have mixtures of these types in one country—Severin, the German agriculturalist, considered the agricultural ideal as a mixture of great estates and small holdings, though his theory is not substantiated in practice—but it is best to consider the pure types by themselves.

The first and most obvious alternative agricultural organisation by which West Coast agriculture might be developed is the large estate or plantation system, in which individuals or companies in Europe would be landlords or tenants of plantations and would send out managers to direct the landless labourers. This would tend to develop agriculture in a lopsided way, because the aim would inevitably be the exploitation of a crop or series of crops rather than the proper farming of the actual land of the country by a well-adapted system of agriculture. But so far as the series of export crops are concerned there is little doubt that the best and latest methods would be used. The natives working on the plantations would be trained to be skilful in a few operations, even if they were not made into all-round agriculturalists. Certainly plantations, by guaranteeing a constant supply of raw material, would make possible the establishment of good machinery for the after-treatment of perishable field products, and would result probably in higher yield and certainly in a more uniform product. But economically there are two peculiar disadvantages which face the plantation system on the West Coast. The first is the exceptionally high cost of European supervision, which has already been mentioned, and the second is the difficulty of labour supply. There is already difficulty in recruiting any considerable supply of labour for such works as mines, roads and railways, and the position is very different from that of the Far East, where there is a vast and dense population which is always readily available. Moreover, the labour that is available even at present is not at all cheap.

These matters are already being tested practically in the Cameroons with cocoa, and it may be noted that there was no great competition when these plantations were put up for sale after the war. There are some plantations of various kinds in French West Africa, and, more recently, very large plantation schemes have been started with rubber in Liberia, but in the latter case it is doubtful how far the results will be applicable if an attempt be made to apply them under the more restrained conditions which exist in British West Africa. Sierra Leone has always been open to agricultural concessions, but so far no proposals have actually matured. The late Lord Leverhulme, it will be remembered, was particularly anxious to be granted

plantation space in Nigeria, but it must be borne in mind that the proposals were more in the nature of discussions than serious plans of responsible contemplated action. It therefore appears that so far there has been no very pressing desire to begin considerable and responsible plantations, though there has at times been a good deal of perhaps rather irresponsible talk. To weigh against this there seems no particular economic advantage for plantations excepting only in the case of a trade in perishable products, especially fruit, where the propinquity of the West Coast to European markets would be an advantage.

The great difficulty with plantations in this case is neither scientific nor economic, but social. The employment of a large number of men inevitably means the forming of labour camps. Men will have to be taken from their homes for a considerable time, with bad results which are familiar to all administrators, chiefly in a lower birth-rate and general immorality. Then the question at once arises as to what law is to be administered in the labour camp itself. Some law must be administered among men who have just been freed from all tribal law, and probably no particular tribal law is applicable to a labour camp because it will be cosmopolitan, collecting its recruits from many tribes. It is practically inevitable that the law that will be administered will be foreign, and therefore strange to native mentality. Then there is the other side of the picture—the effect on native villages of returned labourers from the plantations. In theory one is told that they often exercise a progressive influence on the conservative villages, but in actual experience their influence seems nearly always unsettling and bad.

Consider the difficulties that have arisen in Europe since labour has been massed in factories ; consider that the factory masters in this case are of the same race, religion and language as their labour and can therefore see into the minds of their men ; consider all the efforts that have been made for industrial peace for more than a century, and then decide whether we have yet learned to cope properly with the difficulties of massed labour. How much more difficult then will be the case on the West Coast. This leads to a point of view that may not appeal to everybody, yet it does seem to be a very great consideration with men of the best and most energetic type. What sort of

a future is there for the plantation labourer himself? He may be promoted to be headman of a gang, and a very few may in time fill even higher posts, but on the whole there can be very little in the way of prospects even for the best labourers. Most men doing very simple repetitional manual work day by day for others under supervision, with very little prospect before them, become restless and want change; indeed, it seems that a great deal of industrial unrest is due to this very reason, and even when good housing and amusements are provided they are not really satisfied, just as bread and games failed to satisfy the Romans. They come in time to take all these things for granted and expect more and more to be done for them; their moral fibre has deteriorated, and to many men life has lost all its zest and motive. Arthur Young, who never ceased to champion enclosures, lived to see some of the disastrous effects on the landless labourer of this sort of thing, and he had had by then experience abroad of the "magic of property":

"Go", he says, "to an ale-house kitchen of an old enclosed coun try, and there you will see the origin of poverty and the poor-rates. For whom are they to be sober? For whom are they to save? (such are their questions). For the parish? If I am diligent, shall I have leave to build a cottage? If I am sober, shall I have land for a cow? If I am frugal, shall I have half an acre of potatoes? You offer no motives; you have nothing but a parish officer and a workhouse. Bring me another pot."[1]

It is astounding what poor living men are able to tolerate, but even the poorest ask, and no doubt should ask, for the chance of something better for their families as a prize and encouragement, if they choose to work harder than their fellows. The average man, it is true, will probably not gain much more *in money value* when he works for himself than if he worked for an employer, but the cost, to him, of his own human labour has undoubtedly been greatly reduced: he has adopted a new personal attitude to his own work: it is no longer a compulsory "sweat of the brow", but an investment from which he knows he is going to reap a fair reward: his work may even become a pleasure, and indeed it has become so for many a peasant. Travellers in peasant countries frequently remark upon the

[1] Quoted from Lord Ernle, *English Farming Past and Present*, 1927, p. 307.

comfortable circumstances of the peasant, but they usually conclude that this has been dearly bought when they see how the peasants toil in their fields from dawn to dusk, but they forget that the owner and the hired man measure their labour by different yardsticks. What else will explain the paradox that a professional footballer is working when he is playing football ?

The direct subordination of Africans to a strange race from overseas raises another peculiar difficulty, and many others suggest themselves. McGregor Ross, in his book on Kenya, a country with conditions that certainly seem favourable for plantations, gives examples of the sort of difficulties that have to be dealt with in actual practice. The introduction of the plantation system to a primitive country inevitably means an exceedingly sudden change in native life. Even on the surface it is clearly a change from rather casual subsistence farming to a highly industrialised type of twentieth-century agriculture, a transition, as it were, from home-made arrow heads to Sheffield cutlery in the course of a few years. And the changes that are seen are as nothing to those that are not seen. It would undoubtedly be a quickly disruptive element, a veritable social bombshell, coming at an already critical time when the impact of western civilisation has shaken so much that is stable. And it is clear that the more disintegration there will be, the more building up there must be : the quicker conditions are altered the quicker one must be in dealing with the thousand and one other changes that follow upon them.

The possibilities of the plantation system on the West Coast are actually much less attractive economically than they seem at first sight. Their introduction has, in fact, been treated most cautiously and hesitatingly even in places where it has not been hampered by other restraints or restrictions, and the consensus of informed opinion is that it is scarcely feasible. The economic aspect of agricultural development is the most generally obvious of the three, and is usually the only one seen at a distance, but, as one travels nearer to the real home of the problem on the West Coast and begins to live with and appreciate all the facts, the social aspect looms up and magnifies itself until it vies with the economic. When one adds to the economic considerations the fact that the social disintegration caused by plantations

will inevitably be very rapid, and realise the strain that will come upon administration—that one will have to do no less than build up a new stable social community and need guidance for its future—one must agree that such a method needs superhuman prescience and does not seem practically possible.

The second alternative type of agricultural organisation for the West Coast is metayage. This system used formerly to be more widespread than it is now, but it is still common in France and Italy, and it has been suggested as a suitable type for tropical Africa by several writers at different times. Briefly put, metayage is a system in which a small landlord, or metayer, owns land which he divides into small farms to be let to tenants. The metayer owns the land, puts up the farm buildings, furnishes each farm with implements and stock, and also provides the seeds, manures and whatever else is needed for farming, except labour. His tenants in the separate farms, together with their families, do the actual farming with the materials the metayer has supplied, and when they reap their crops they send a proportion, usually one half, to the metayer as payment for rent of land, buildings, implements, etc., which he has lent, and for the seeds, manures, etc., which he has given them.

Martin Leake[1] among others has recommended this system in a closely reasoned study, approaching the whole problem of agricultural organisation purely from the point of view of agricultural production under the peculiar circumstances of Africa, and detaching all considerations of land tenure, just as we wish to do for the moment. He recognises firstly that there must be some central authority or government which must have money to keep up essential public services by taxation in some form. Secondly, he recognises the farming community which wants money for seeds, implements, drainage, and so on, which money cannot properly be supplied by the government, and is, in fact, the problem of agricultural indebtedness. He admits this might be done by co-operative organisation, but considers it unlikely, as he thinks its success depends on some elusive temperamental characteristic which is probably absent among primitive races. This point will be discussed later on,

[1] Leake, Martin, *Land Tenure and Agricultural Production in the Tropics.*

but in passing it should be noticed that the African in most cases needs comparatively little money to start profitable farming, while in India, whence Martin Leake largely drew his experience, the farmer seems to need a great deal. He then goes on to develop his argument by stating that it will become essential sooner or later to fall in line with the economic doctrine of land. This needs a detailed land valuation which is not practicable in the case of vast multitudes of farmers in a primitive country. He therefore considers that, besides the central authority and the farming community, it is necessary to have another class of person, the landlord, to provide money for farming and as an administrative convenience in land valuation. But Martin Leake views a wider experience than just that of the comparatively benevolent English landlord, and he fully realises the dangers bound up with other landlords under less fortunate circumstances: he may easily become an absentee landlord or a rack-renter, or equally well an encloser and dispossessor. In order to make sure that the landlord will not abuse his position in any of these ways Martin Leake ingeniously proposes that his personal interest in the well-being of his land and his farmers should be ensured by the metayer system. He admits that he cannot distinguish any class of person at present in native society who could be given the standing of a metayer, and he concludes that this class will have to be created. Finally he realises that until the metayer system can be brought into operation it will be necessary to have a temporary transitional period during which he suggests that the merchants of the county should be given strictly time-limited functions of being temporary metayers as well as merchants.

One will not be disposed to quarrel with this as a theoretical solution of the peculiar difficulties of agricultural production under primitive conditions such as in Africa. The metayer system at first sight is most attractive in theory, but as soon as it is looked at critically it begins to be unsatisfactory. It is true that the metayer and his tenant are both interested in getting the greatest economical production possible, but their interests are not really identical in carrying it out. The metayer's interest is to cut down costs to make greater profits, and he will skimp his tenant of materials and constantly try to

avoid the costs of upkeep: the tenant, on the other hand, has little interest in the metayer's property, so he takes no care of the buildings or implements, overworks his horses or other stock and is always clamouring for more materials. These divergent interests lead to constant friction. The proportions in which the crop shall be divided again leads to trouble, and it has been said that even the Koranic tithe of one-tenth of the crop has tended to decrease production. Economists have been struck with the ingenuity of the metayer system, which was supposed to have moral advantages, but they are almost unanimous in pointing out that in practice it has the disadvantages both of large estates and small holdings without any of their advantages. The metayer system is said to have originated in places where labour was scarce. The evidence given by economists on the actual working of the system is often contradictory: it seems that it does work satisfactorily in a few places in Europe, but there is no doubt that it has been steadily declining in importance and giving way to other systems. In the United States there are about two million share-tenants who correspond fairly closely to metayer tenants and are there called 'croppers' or 'share-croppers'. There is some evidence that this form of tenure is a useful rung of the "land tenure ladder" up which an agriculturalist may climb in his lifetime from landless labourer to operating ownership, but the whole question is so exceedingly complicated that no useful conclusion can yet be drawn from American experience.[1]

That is apparently how the metayer system stands at present, but as soon as one begins to think of applying it on the West Coast one realises what an enormous question must be answered before the system can begin to work at all. Where are the metayers to be found? Martin Leake looked carefully into the existing social organisation to search for them: he rejects, among other possible candidates, the headman of villages, because they are naturally political and not agricultural representatives: finally he concludes that no embryonic metayers exist and that a whole new class will have to be specially created.

[1] A kind of metayer system is also in operation on the Gezira in the Anglo-Egyptian Sudan. In studying this scheme one must remember that the conditions are exceptional, since a thinly populated semi-desert was suddenly transformed into a comparatively rich area by irrigation.

It is not at all impossible to create a special class : many new classes of people, such as schoolmasters, clerks, clergymen and artisans have in fact been largely created on the West Coast already, so that the creation of men of the metayer class, with sound agricultural training and business ability might possibly not present any insuperable difficulty. But that is not all one has to do. One has not only to create a new class, but a new class definitely and specially privileged with land and other property, and even this is not enough, for presumably the metayers will be an hereditary class as well. How is it proposed to choose from a mass of West Africans who, so far as is known, are equally deserving and eligible, a new, privileged hereditary class of men who will be the metayers ? Until it is possible to decide this question the metayer system remains impracticable.

A still greater objection both to the metayer and the plantation systems of agricultural organisation is at once apparent when they are staged against the full West Coast setting. So far we have left all considerations of land tenure aside, so as to judge each system on its inherent merits or defects apart from any pre-existing human arrangements, but we can no longer leave this factor out of the picture. As we have seen previously there exists a definite and very conservative arrangement of land tenure, and the introduction of either of these systems implies that this must first be changed.

Enough has been said of the religious and social motives behind West Coast land tenure to allow one to sympathise with what seems the super-sensitiveness of the West African in defending his land tenure system, and later on this subject will be discussed in greater detail. All that need be said at present is that they are so super-sensitive that the majority of West Africans resist almost any change, perhaps even all change, in land rights. But it is manifestly impossible that not a jot or tittle of the land law should be changed, especially in a country where everything else is changing and moving quickly. The land law of the West Coast may be stable, but it is not absolutely stationary : it has, of course, changed and developed in the past and, like everything else human, it will and must necessarily be modified to suit changing conditions.

But while everyone must agree that modification of land law

is essential, this is not to say that actual alteration of land law is necessary. Both the plantation and the metayer system at once involve much more than a mere modification of land tenure : they necessitate the introduction of an entirely strange concept of the landlord, or landowner, a most radical alteration of the whole principle of West Coast land law. It has sometimes been suggested that the plantation system does not necessitate such a radical alteration because it might be able to exist, not by owning, but by leasing the land. It is true that a process which might fairly be called leasing is familiar to the West Africans, but it would be a gross exaggeration to say that they are in any way familiar with the leasing of large tracts of land for a considerable period, and it must be exceedingly rare to find any circumstances under which a lease acceptable to a European could at the same time be acceptable to the West Africans.

Fundamental alterations in land tenure do not in any way seem practicable on the West Coast, seeing the depth and tenacity of the present native views on the subject. And it is not merely the rather negative argument of *force majeure* that should appeal, but many positive arguments for retaining the present principles of land law as well : the conception of land as a use rather than a possession, the idea of a perpetual usufruct and the attempt to share the monopoly of land as fairly as possible are eminently wise and far-seeing to a farmer. The question then remains whether it would not be possible to avoid great alterations in land law altogether, to modify even to the smallest extent, keeping these present sound ideas and yet to have an equal chance of developing an efficient agriculture. Of the three possible types of agricultural organisation peasant agriculture undoubtedly involves the least change in land laws. Some modification in land law is inevitable, but peasant agriculture needs the least, and it allows a gradual modification, whereas the other two necessitate a break, an alteration and a re-orientation. One is a developmental change of an evolutionary nature, while the others are clearly alterations of a revolutionary character. One is a growth of the agricultural organism, the others are grafts. With peasants the agricultural fugue can be carried on directly, and continuously developed, but with plantations and metayers the flow of music

must be abruptly broken until a new, fully harmonised score is ready.

In fact, when one brings together all the factors that closely affect agriculture on the West Coast, considers them in their due relation, and estimates what would be involved in changing to any alternative organisation like metayage or the plantation system, it seems one is indeed forced to only one conclusion. Changes to a new type would be too great and sudden to be practicable, and one must therefore rely upon the third alternative of peasant agriculture. This apparently inevitable conclusion still fills many people with so much gloom and foreboding that they begin arguing round the vicious circle again. With all the good will in the world, they find themselves unable to believe that there can ever be any possibilities in peasant agriculture anywhere, and no amount of individual argument will help them at this point. Their difficulty is not a local, but a general, one that lies far back and so deep as to be barely recognisable. The only thing that will really convince them, and which indeed they owe to themselves, is a very thorough re-examination of the whole question of scale in agriculture and a study of the probable facts and figures that result in various different countries.

But even to the sturdiest optimist the alternative of peasant agriculture conjures up once more all the numerous grave shortcomings of the present West Coast farming which became obvious from the study of local agricultural history. The alternative of peasant agriculture for the future does not, however, mean leaving things exactly as they are, so when one thinks of peasant agriculture in this connection it is very necessary to be explicit. One is not comparing the types as they exist now on the West Coast, for only one of them exists at present. If one visualises plantations on the Coast one thinks of the plantation system as efficiently applied as might reasonably be expected in the future, or of the metayer system as one would probably expect it to become in a short time. So, to be fair, one should likewise think of peasant agriculture as a type which might reasonably be expected to be developed in the near future also, judging, as one is bound to judge in all three cases, from what has happened in other parts of the world. The present type of agriculture on the West Coast is

a crude form of peasant or small growers' agriculture, but the peasant agriculture that ought to be visualised for fair comparison is a developed type of peasant agriculture, developed, that is, as carefully as a plantation type would be, supposing plantations could be put there ; a type of the future to which as much care and thought and money has been devoted as would have to be devoted to a future plantation or metayer type. In nearly every case when the comparison is made the plantation type is pictured as an efficiently managed, well-organised, thoroughly up-to-date affair, while peasant agriculture is not pictured at all, but simply taken as it exists in its admittedly inefficient form to-day. To be fair and sound, comparisons must either all be based on actual realities of the present or all based on reasonable probabilities in the future.

The choice of an agricultural organisation, or organism, has now been made. It does not involve the birth of a new system like the plantation or metayer system, but rather the growth and development of the organism already there. The present organism has not done badly at all ; it has grown up rapidly and it thrives now ; perhaps it has been rather lucky in being more protected from competition than usual, and in being young, but soon it will have to fend for itself. One can see some weaknesses already, and it is justifiable to be anxious that it should have a good and secure future. In the following chapters the choice of peasant agriculture for the future will be followed up and some suggestions as to how it might be guided in its upbringing will be examined and discussed. And if the obstacles that lie in the way of an efficient peasant or small growers' agriculture seem so overwhelming at times, one may be heartened by remembering the still great difficulties that confront the other alternatives of plantations or metayers.

CHAPTER VI

THE COMBINATION OF PEASANTS: AGRICULTURAL CO-OPERATION AND ITS POTENTIALITIES

ONE now passes on from an analysis of the past and an appreciation of the present to an outlook over the future, having chosen as a definite guiding aim the practical possibilities that there may be in the direction of an improved peasant agriculture. We may still find it helpful to carry the metaphor of a fugue in our minds to give us a sense of general direction in dealing with the complexities of agriculture and conceive it as three interwoven themes; in this chapter we may consider the advance of the economic theme and in the next a method of developing the scientific theme, while the chapters on land and agricultural propaganda mostly concern the social theme.

If one looks at peasant farming among civilised peoples nowadays one will find it hard to pick out an example of the old type of peasant agriculture that was common enough fifty years ago, and if one were to seek the real cause of the great difference between old-fashioned and modern peasant farming one would find that it is ultimately a question of organisation. A few examples of the old type still exist, and the peasants are usually as poverty-stricken as ever, but the prosperous modern peasant is the organised peasant. The solitary peasant may still eke out a precarious existence, but when he is in combination with his fellows he enjoys a secure and comfortable living. As in industry, so in agriculture, the outstanding change of the last fifty years has been the syndication and combination that has gone on, and perhaps with even greater benefit in peasant farming than in industry.

Modern peasants combine for all sorts of purposes. They most frequently join together to borrow the money they need to carry on and improve their farming by putting their small and insecure properties together and so making a security

respectable enough to attract loans of money at reasonable interest. They also very often combine together to use machinery for treating or manufacturing their raw material, and for both buying and selling farm goods, and combination is also used for reclaiming or marling land, for animal breeding and feeding work, for exchanging minute uneconomic holdings, and in fact it may be used in almost any conceivable branch of farming.

It is surprising to find that this combination has nearly always taken the same form, so much so that the few other methods of combination that have been tried in some places seem by comparison mere curiosities. This method is co-operation, a recent invention as English as the steam engine and familiar enough in every town in England in the shape of co-operative stores, but to prevent misunderstanding it is better to call it agricultural co-operation, a type that is rarely found in England but which is already important all over the rest of Europe and parts of Asia, often practised in parts of America and Australasia, but as yet little used in Africa.

The changes brought about in peasant farming by agricultural co-operation have, indeed, been so very great and so generally beneficial that it is the easiest thing in the world to become so lost in admiration that one loses all sense of proportion as well. One must always be alive to this danger, and so one must approach agricultural co-operation in a specially cautious and critical frame of mind, for there is probably no subject in the whole of agriculture, except perhaps that of the application of machinery to the land, that has suffered so much at the hands of well-meaning enthusiasts.' The virtual re-birth of peasant farming by agricultural co-operation has been the work of men of enthusiasm and vision, certainly, but their main characteristic has been much more a quite exceptional hard-headedness. Many of the pioneers never thought of large schemes except in the far-distant future, but they saw possibilities and went forward little by little, being content to deal with the very present realities of hard economic facts, and they clung to that even when such success had been won as would have turned the heads of weaker men and diverted their thoughts and energy from realities to a false idealism. Far too many of their followers have seen only the spectacular brightness of the

achievements and been blinded by them ; they have not the patience to follow out the difficult path through the dull foreground of everyday economics, but blindly push on to their distant visions oblivious of the snags and pitfalls in front of them.

The paradox of agricultural co-operation is that its success in one place has so often been its undoing in another, and as a result many people nowadays will not consider it justly because they are frightened of the risks. This is because there is a most distressing looseness in the application of the term, and this does a great deal of harm and ought no longer to be allowed ; nearly all the failures of agricultural co-operation are failures of what have passed for co-operative societies, but which have been actually co-operative only to a very slight degree. It is a question of technique, and although it is not possible "to put co-operation into the rules" yet nowadays it is possible to decide by a few simple tests whether societies have the pure refined technique of agricultural co-operation ; if they have they should be called co-operative societies ; if they have not this pure technique then they should be recognised for the alloys they are, often joint stock concerns or simply loose associations. So in studying agricultural co-operation one must try to hold a middle course firmly, not allowing its great achievements to lull one into an uncritical optimism, nor its apparent failures to frighten one off altogether.

It is easiest to begin by clearing away a few misunderstandings. Firstly, it is important to distinguish a co-operative society from a communistic society. A co-operative society is a voluntary association in which every member has a vote and the society does what the majority want, and if a member does not agree to any particular decision he can always resign, subject to any contracts he may have made, and he can join another society if he wishes. But a communistic society is of the nature of a monopoly ; the individual has only a Hobson's choice of joining with his fellows or becoming an outcast, so that membership is really enforced, the minority always has to do what the majority wants, and it is impossible to escape by resigning. It is apparent then, that co-operation in no way compromises individual freedom, and that in a country containing co-operative societies competition can work quite freely, whereas

in a communistic society both have been shut out altogether. Then of course we are not dealing with co-operative agriculture, which would mean some form of joint or communal farming, but with agricultural co-operation which is the voluntary combination of individual farmers for special farming purposes. Thirdly, co-operation is not used here in the broad sense of a general theory which wants to eliminate competition and replace it by the principle of mutual help, but rather in the narrow sense of the combination of individuals in a particular way in order to do their work more easily or cheaply. It is not supposed to be necessarily the most desirable or ideal method of conducting business, but it is considered here merely as a business method or instrument, apart from all other considerations. This instrument can be most decidedly two-edged, for it may be efficient or inefficient, depending upon how it is used, and it may lead to 'good' or 'bad' business, but of itself agricultural co-operation has no moral tone; it is merely neutral. Under certain conditions it does produce great moral and social effects which are so very important that it would be absurdly pedantic to ignore them, but it is so vitally necessary to keep these aspects perfectly separate that they have been divorced altogether from the general discussion and treated separately at the end of the chapter.

Farmers of all degrees make use of agricultural co-operation, but it is commonest among the small peasant proprietors, and it is likely that it would be particularly useful to the West Coast farmers for collecting their small parcels of produce together into bulk to treat it and sell it, for obtaining money loans, and to a less extent for buying and selling farmers' tools and materials. The advantages that they are likely to get are chiefly the usual benefits which result from large-scale working and the favour that is given to trading in a large bulk of produce or security; it allows the use of costly machinery, the service of experts, and the use of factories of just the right size for the raw material that will be coming in. Often as a consequence the farmer can deal in stable worked-up materials like butter or cheese, canned fruits or sugar, which can wait for a good market, instead of in perishable goods like milk or fruit that must be sold quickly at any price, or not at all. Then agricultural co-operation ensures that the added profits that

come from working up perishable goods into stable articles of commerce go to the farmers who own the factory and not to industrialists, and so it increases farming profits. Finally it relieves the farmer of a multitude of odd jobs that he can never hope to do well; he need no longer be an amateurish jack-of-all-trades, but he is left free to devote all his energies to his chief business of raising crops. The total of these benefits is very considerable; they are comparable with the modern town dwellers' facilities of cheap transport, clubs, libraries, service garages and so on, except that the townsman has no direct share in the profits. To the man in the street these things mean cheap luxury and make his life more liveable, but to the man in the field they are much more like wants which mean the difference between grinding poverty and a comfortable living. It is reasonable to expect that the benefits resulting from co-operation in different countries might also be reaped on the West Coast and the study of agricultural co-operation therefore becomes a matter of first-rate importance. A short historical outline and a survey of present-day results will put us in a more favourable position to suggest what might be done.

The root idea of co-operation, that is working together for mutual benefit, has, of course, existed for ages. In farming matters it took shape in the minute organisation of primitive village communities, perhaps all over the world, but very obviously with the 'Aryan' group of peoples. Until comparatively recently it was assumed that this organisation was very crude, but modern historical research shows that it has been greatly undervalued. In England it is very difficult to estimate its power and range because a great part of it was swept away by the Norman invaders, but it is easier on the Continent, and especially in Denmark, where joint farming continued until as late as 1790, and where farming has always been the paramount occupation. One may read of the Danish village community or Bye, with its bye-laws, its aldermen, its schoolmaster, bailiff, blacksmith and herdsman; of the meetings on the village green, summoned by the village horn, when farming and other mutual matters were discussed and decided by majority vote, and of masses of detailed regulations which clearly prove that there was a strong and complete democratic

organisation, or home rule, in mutual domestic matters. This organisation seems to have grown up naturally little by little as the village communities increased in complexity, for there are marked similarities between Western and Eastern organisations. On the West Coast Hawkins noticed long ago that the Africans "take order in the gathering of the fruites" and how the palm wine was divided by the judgment of the "Capitaine and Elders" : there is a complex organisation of markets and much minute regulation of rural industries, and no doubt further investigation would bring very much more to light. It is well to remember all this working together for mutual benefit in farming, so long as we realise clearly that in these communities there was only the vaguest and most unrefined conception of the agricultural co-operation which we know to-day, for all this old organisation was as much a benevolent, though necessarily rather cramping communism. But it is the crude matrix from which the pure technique of modern agricultural co-operation has been extracted.

There have been struggles towards the modern co-operative society in many countries. Probably the earliest were the Japanese 'Ko' and 'Mujin' societies which are said to be seven or eight centuries old and, by an extraordinary chance, they were independently elaborated into Hotokuska societies, which very closely resemble the modern co-operative credit society, in the very same year in which the Rochdale Pioneers discovered co-operative technique in England. Certain forms of co-operation in cheese-making have existed in Switzerland since very early times : in England and Scotland at the end of the eighteenth century there were a few organisations amongst the common people for buying and selling in combination which were mostly co-operative, notably a society at Lennoxtown in Scotland, which related profits to some extent with amount of purchases, or patronage, and so contained the germ of the modern co-operative idea.

Robert Owen is generally given the credit for crystallising the idea of voluntary co-operation in a recognisable form and especially in giving it wide publicity. In 1800 he planned and managed a co-operative society, in connection with his cotton mill, for buying and selling household goods that was so successful that it attracted visitors from all over Europe.

Later on his hand was forced by ill-informed enthusiasts, and he greatly widened the scope of his operations and aimed at social rather than business ideals, with the result that all his later communistic schemes failed dismally in practice.

It was in 1843 that the really epoch-making improvement in the technique of co-operation was made, and from it has sprung nearly all modern co-operation. It is a romantic story. Twelve poor flannel weavers of Rochdale each agreed to contribute twopence a week for a year in order to buy a sack of flour to distribute among themselves; a little later sixteeen more joined them, and at the end of the year they had managed to scrape together £28. The aim of these Rochdale Pioneers was to improve their own economic status, and these practical weavers kept this steadily in mind, wisely refusing to follow the advice given to them to launch out into numerous social problems. They formed a Co-operative Distributive Society, the Equitable Pioneers, in 1844, by raising a small capital in £1 shares, and opened a shop for two evenings a week where the members took turns at selling the flour, butter and sugar, their sole commodities, at ordinary trade prices for cash. Each member had one vote in the management, and the surplus from trading was divided annually in proportion to the amount of purchases made, and not to the share capital invested, which only received a fixed five per cent. The Rochdale Pioneers' store prospered at once and they soon dealt in other kinds of goods; in 1851 they built a flour mill and, four years later, a cotton mill. By this time the store had attracted so much attention that in 1851 there were already 130 copies of it in England, and the movement has spread so rapidly that there are now 2500 stores with a turnover of 111 million pounds. Forty-five stores federated for wholesale buying in 1863, and they were nearly all federated in 1872 in the Co-operative Wholesale Society, whose dealings in 1915 reached the enormous turnover of forty-three million pounds, including all kinds of business with world-wide ramifications.

But in England co-operation has never been successfully applied to farming, and one must study agricultural co-operation in Germany, or best of all in Denmark, where it has been developed in its purest and most successful forms. In Germany Herman Schultze, impressed with the British experience of

co-operation, founded a small society in Delitzsch in 1849 with fifty small shoemakers for buying leather wholesale and distributing it to the partners at these prices, and a smilar scheme was started for joiners. Later on he started a co-operative credit society, and it is in this direction, and mainly in industry, that the Schultz-Delitzsch influence has since principally flowed. In very much the same way, but quite independently, Raiffeissen started purchase societies which also later on included credit schemes, but they differed from the Schultz-Delitzsch societies in several ways, principally in their essentially local nature and in their appeal to rural, as against industrial communities. The Raiffeissen societies especially have been widely copied for credit purposes, but Danish experience of co-operation in agriculture has been much wider in scope and is more generally interesting.

Co-operation was introduced into Denmark by "Parson Sonne", who started a Distributive Society in his urban parish of Thisted on Rochdale principles in 1866. The movement spread slowly at first, but afterwards made great headway in rural districts, where the peasants saw in them an economic means of fighting their monopoly-protected political opponents in the towns. At the time Denmark was changing her whole system of agriculture from cereal to dairy farming and the Danes were soon greatly concerned about their export trade in butter. Great improvements were effected both in the estate butter and in the peasant butter which was sold to middlemen who collected, graded, mixed and exported it, but it was soon realised that even the very best peasant butter would fetch less because it was produced in small parcels that were not marketable by themselves. Central factories for treating peasant milk were started by private enterprise as early as 1852, but they did not become practicable until the centrifugal cream separation was invented, and even then they did not really succeed because of a divergence of interests. The farmers were not financially interested in the success of the factory and the private factory owners were not agriculturally interested in collecting the milk at convenient times, handling it carefully, returning the skimmings, or in taking precautions to prevent the spread of cattle disease.

In 1875, however, some farmers at Kaslunde themselves built

and worked a dairy upon Rochdale principles, and although it was a success from the first and still exists to-day, it curiously enough attracted no attention for many years and apparently did not influence the course of events. The real beginning of Danish agricultural co-operation was in 1881 at Hjedding, when a meeting of farmers was held at which a young dairy expert explained how to make good butter, and recommended them to follow out the principles he advocated on each of their farms and send their butter, which would be fairly uniform, to a central store to be graded, worked up and packed for export. The farmers, however, were of the opinion that it would be better to send the milk for treatment rather than the butter, and they decided thereupon to form a society on those lines. Stilling Anderson was their leader, and he drafted out the rules of the society the following night so exceedingly ably that they have ever afterwards served as a model for co-operative dairies in Denmark. Hjedding dairy was a success from the very first and made a tremendous impression, for nine years later no less than 679 dairies were working on the same lines. Agricultural co-operation in Denmark discovered its technique in the Hjedding dairy, and the principles laid down there will be discussed later on. By 1914 there were 1168 co-operative dairies out of a total of 1503, their membership being amongst farmers of all acreages except the very largest.

The first co-operative bacon factory at Horsens followed six years after the Hjedding dairy. Unlike most Danish co-operative undertakings it encountered severe opposition at the start from middlemen, but in spite of initial difficulties, and later keen competition by middlemen, the factory prospered, and ten years later twenty-five more were working. Changes in the bacon trade stimulated the movement, while on the other hand severe competition sought to bewilder the farmers by insidious propaganda, and disputes in the policy of pig breeding, a matter which had to be taken up because of the different requirements of the German and English markets, threatened to divide them, but in the end the farmers triumphantly overcame all these difficulties by the strong discipline practised within the co-operative societies, loyalty to which was ensured by insisting on contracts. Strong competition with private bacon factories continued for many years, and there were repeated proposals

at various times from the private factories for an alliance, but fortunately these were always resisted and the number of pigs dealt with by co-operative factories has rapidly increased, while those dealt with privately his steadily diminished, until in 1915 seventy per cent of the pig owners were co-operators, representing eighty per cent of the bacon export. Had these proposals for an alliance with private factories been accepted it would have reflected upon other branches of agricultural co-operation and seriously damaged its whole future.

After the success of Hjedding dairy and Horsens bacon factory, the Danes were thoroughly impressed with the power of co-operation as an instrument of farming business and they then proceeded to apply it in many ways, but always cautiously. The export trade in eggs carried on by middlemen collectors began to get a very bad reputation on European markets owing to speculation and holding up of supplies, and although attempts were made to put the trade right, first by propaganda, and then by agreements between the peasants as to quality, the position grew worse, the merchants protesting that they were powerless in face of competition among themselves. The Danish farmers took the unusual course, for them, of starting a central society with local branches formed from it all over the country, in contrast with their usual practice of forming local societies which afterwards federated into a central society. This was a most effective way of dealing with the situation, for the egg export, which in 1895 was only increasing slowly, grew twice as fast in the next five years and increased to more than six times its value in the next twenty years.

In the butter trade also, speculation by the middlemen, who bought up the produce of the co-operative dairies, began to result in prices which bore little and inconstant relation to quality, so that the farmers found it necessary to federate their dairies into butter-export societies, a policy which was quickly justified by results. In 1884 Friis applied the co-operative principle to bull clubs for breeding purposes, and in 1895 'control' societies for keeping records of milk yields and food units of cows were started on a co-operative basis. The effects of these various co-operative agencies in dairying are reflected in the average butter yields for all cows in Denmark, which were, in 1864 80 lbs. of butter per annum, in 1887

116 lbs., in 1908 220 lbs., and now probably about 350 lbs. Nowadays co-operation is used in every branch of agriculture and for almost any conceivable farm purpose, from credit facilities, reclaiming land or using heavy machinery, to buying and selling materials, poultry breeding, or milk recording, and there are signs that co-operation in the rural areas is at last spreading to the towns in the form of Co-operative Distributive Societies, the form co-operation has mainly taken in England.

Several valuable conclusions can be drawn from this history. The co-operative movement in Denmark was developed by the peasants themselves, without any propaganda or tutelage on the part of estate owners, philanthropists or government officials, except for the introduction of the Rochdale technique by Parson Sonne. Besides being a spontaneous movement of the peasants, it has also been an essentially local development, except in the case of the egg trade, where co-operation was centralised first and local branches were formed afterwards. A few farmers would meet together and decide to start a co-operative society for a certain purpose to cater for the needs of their own district, and if this society was a success other local societies would begin to spring up in isolated districts until it became clear that there was an advantage in federating these local concerns over a large area, and these again might re-federate and culminate in the very large export societies, all of which again are combined in the Central Co-operative Committee, which is the peak in this mountain of co-operation. The local societies, however, still retain almost complete autonomy when they federate, and since all these larger combinations proceed on the democratic system of one society one vote, there is no likelihood of the larger units dictating to the local societies. The building of the pyramid of co-operation in Denmark has proceeded gradually step by step from the base to the apex whenever it seemed desirable, so there has been no powerful central body trying to map out in advance the direction and scope of embryonic local societies on lines of theory rather than of practical experience.

A third characteristic of Danish agricultural co-operation can be discerned in the exclusiveness of the societies in their aims. A dairy society, for instance, will be formed to deal solely with

the business of making butter from milk: it will absolutely refuse any other dealings, such as buying and selling manures and seeds, the keeping of milk records for breeding purposes, etc., which one might imagine could be easily dealt with by the pre-existing organisation, but the Danes do not allow any secondary aim in a co-operative society. It would not be true to say that they never have done so, for we have already seen that the co-operative bacon factories were forced to take up the question of pig breeding, but it is most unusual and is only allowed when it appears to be unavoidable, and then it is regarded in the light of a temporary and undesirable expedient. Each branch of co-operative enterprise, then, is dealt with specifically in a separate society, and it is therefore not at all uncommon for a peasant proprietor to belong to as many as ten co-operative societies, including, perhaps, a Co-operative Dairy (which in turn would be a member of a Co-operative Butter Society), a Bacon Factory, an Egg Export Society, a Manure Purchasing Society, a Feeding Stuffs Purchase Society, a 'Control' Society, a Co-operative Distributive Society and perhaps a Co-operative Credit Society.

Danish agricultural co-operation, then, has been developed by the peasants themselves, of local rather than central growth and characterised by a division into branches with specific and exclusive aims. Still, taking a broad general view of agricultural co-operation in Denmark there are two other matters which call for comment. One would expect, as a corollary to the fact that co-operation has been almost entirely a peasant movement, that the peasants would take an active interest in the affairs of their societies. Such is indeed the case: they form very active members of a society when contrasted with the agricultural co-operative societies in England whose members seem much more passive, or even indifferent to their mutual affairs. Secondly, the managers of the co-operative societies are very capable: they are, in point of fact, the cream of the agricultural personnel in the country for nearly all of them have passed through the Royal Veterinary and Agricultural College and obtained a diploma by examination, which is an unusual proceeding in the Danish educational system. They are paid on a recognised minimum wage scale according to the size of the undertaking, together with a commission on turnover.

Turning now to a more detailed study of the societies, one finds certain principles so universally applied that they must be recognised as fundamental to the technique of Danish agricultural co-operation. Firstly members pledge themselves jointly and severally liable for the loan raised to start the society, and proportionately to the estimated amount of supplies (patronage) from each. In the case of a dairy, for instance, liability for, or subscription to, this loan is proportionate to the number of cows kept by a member. Secondly, the members themselves direct the policy of the society on the basis of majority voting, each member having one vote irrespective of the amount of his dealings with the society. The third principle is most important: the profits which result from the trading of the society, after paying a fixed interest on the loan or capital invested, are distributed in proportion to the amount (and often the quality also) of the produce sent in by each member. This is a crucial principle which clearly distinguishes co-operative societies from joint stock companies, where profits would be divided on the basis of capital invested and not on amount of material sent in. It is essential to agricultural co-operation that the man who sends in the most raw material, without which the society could not operate at all, receives most profit for performing this necessary function. An industrial joint stock company, on the other hand, can operate perfectly well without the patronage of the member, but depends for its operation mostly upon the capital invested in it and for this more necessary function the profits are reserved.

Fourthly, payment for supplies, usually weekly, is at current market prices, while the surplus is paid out annually as a rule, and payment in cash is usually stipulated. The fifth principle is also very important. Members are required to sign contracts in which they bind themselves to deliver their produce to the society for a period of years, often five or ten. They may contract to deliver all they produce, or only a definite amount, but they are allowed to hold back what they need for domestic use. Finally the co-operative societies are free societies, membership being open to all, and they are 'neutral' and unbiased by religious, political or social ideals. Slight exceptions to these rules can of course be found, but they are distinctly exceptions,

and these rules represent overwhelmingly the practice up to the present day.

The brilliance of Danish results in agricultural co-operation has undoubtedly tended to blind us to the fact that agricultural co-operation is both widespread and successful in many other parts of the world, though nowhere are the effects so spectacular as in Denmark. There has been a great development of co-operation in other parts of Europe. All Europe suffered in varying degrees when the virgin lands overseas began to flood the markets with cheap grain soon after 1880, so that European agriculture was severely, and it seemed permanently, depressed. It is no exaggeration to state that it was mostly co-operation which was responsible for the revival of agriculture in Europe that has occurred since: it was the instrument of the silent agricultural revolution which made dairying, market gardening and poultry-keeping possible and profitable to the European farmer by reorganising them upon the new basis of co-operation for processing, bulking and exporting produce.

Taking a rapid survey of Europe, the Irish creameries initiated largely by Sir Horace Plunkett from his American and Danish experience probably come first to mind: Denmark has been dealt with as a brilliant example which rather overshadows the very considerable co-operative achievements of Norway and Sweden in dairy produce, and of Finland, where peasant co-operation is extremely well developed. The strong growth of agricultural co-operation in Belgium began about 1890 with the purchase of manures, and owes a great deal to the very intelligent interest and help of the rural Catholic clergy. A little earlier agricultural co-operation was initiated in Holland as the indirect outcome of a Royal Commission which examined the serious position of Dutch agriculture, and as a result Holland now exports vegetables and dairy produce by co-operative organisation. The Raiffeissen credit banks in Germany have already been described: they led in time to the co-operative purchase of agricultural necessities and then wider application to sugar-beet factories, drainage, irrigation, bog reclamation and the use of agricultural machinery. The French have developed a high degree of combination with their "Syndicats Agricoles", but they have not been as successful as the

usual type of co-operation: in Switzerland similarly agricultural co-operation has not developed so well, apparently owing to multiple-purpose societies and some confusion of agricultural matters with social reforms.

In turning to England, perhaps it is necessary to remark that the history of agricultural co-operation is reviewed for comparative purposes only, and not in order to suggest that agricultural co-operation is theoretically necessary or desirable. There have been attempts for a considerable number of years to apply co-operation to agriculture in England, and many agricultural co-operative societies have been founded in widely separated areas all over the country. Compared with other co-operative societies, both their organisation and discipline have been extremely loose, and consequently they have been very evanescent.

The Agricultural and Horticultural Association founded in 1867 and the Aspatria Agricultural Co-operative Society of 1869, were two of the earlier societies, but the first considerable development of combined marketing was the cheese factories in Derbyshire and Staffordshire, which were established about 1870 as a reply to the American cheese factories, and on the same lines. These factories were at first so successful that students from Denmark and Russia actually attended courses there, but they soon encountered opposition from cheese factors who, one suspects, easily undermined the loyalty of members to their societies: changes in the dairying industry brought about by improved transport also caused many of them to close down, though a few still exist.

In 1896 Lord Winchelsea started a central society, the British Produce Supply Association, with £50,000 capital for co-operative sale of produce, which proved a disastrous failure. But it was quasi-political in character, and although its motto was "co-operation for farmers", it was not in any sense co-operative, though its failure unfortunately involved agricultural co-operation in unmerited disrepute owing to popular misconception. In 1900 the British Agricultural Organisation Society was founded. It made little progress until the war period intervened, but in 1920 agricultural co-operation reached its peak turnover of over seventeen millions sterling, including seven millions sterling as co-operative sale of produce. Total

sales now only represent three and a half per cent of agricultural produce marketed in England and Wales. Co-operation has now been repudiated as an instrument for agricultural improvement by the National Farmers' Union, who had assumed responsibility for its development in 1924, when the Agricultural Organisation Society was brought to an end in England, though not in Wales.

There are a few, a very few, successful co-operative societies in England at the present moment: that is to say, that they are successful financially and growing quickly in number of members and in the volume and efficiency of their business, but if one examines even the most successful of them more closely one is driven to the conclusion that they show little signs of permanence. In the majority of cases the members make no contracts to supply their produce to the societies and one could not guarantee the loyalty of members even for six months, so that the society may disintegrate the moment it failed to pay less than dealers offered. There is great difficulty in obtaining good managers, for the farmers are usually unwilling to pay one of their servants as much, or more, than themselves. There is a constant tendency as soon as ever a society is successful to distribute profits on the basis of capital invested rather than on commodity patronage, and turn the co-operative society into a joint stock concern. The financial arrangements for interim payments are often crude, so that all members do not share equal responsibility, and finally there is often remarkably little interest taken in the operations of the society by the members themselves. These societies may be called co-operative societies, but actually nearly all of them violate one or more of the essential rules of the technique of good agricultural co-operation, and there is hardly one of them that could truthfully be said to practise agricultural co-operation. These organisations, unfortunately, are chiefly of interest as a pathological anatomy of agricultural co-operation, and they are neither successful nor precise enough to be taken as a working model.

In both Canada and Australia there have been developments in agricultural co-operation, but in marketing for export rather than in processing raw material. In New Zealand there has been a rapid and very successful development of co-operative

dairies, beginning as creamery societies, but now federated for purposes of export. The quality of cream supplied to the co-operative dairies and of the resultant export butter has since greatly improved. In South Africa the main developments have been in the Transvaal, where an Act was passed which in effect forced co-operative societies to proceed strictly on sound co-operative lines, and thus eliminated the fatal looseness of administration which formerly characterised agricultural co-operation in South Africa. India has an agricultural co-operative society for every 6000 inhabitants and, though 98 per cent of these are credit societies, yet co-operation has proved a powerful instrument for consolidating holdings, for sale and purchase, and for various other purposes. In the Punjab co-operation has been especially developed, there being a separate department of government, the Co-operative Department, which supervises and guides co-operative effort, in addition to the Agricultural Department. Malaya is now being influenced by Indian experience and in both the West Indies and Ceylon credit societies are important. In Egypt and Cyprus co-operation is doing good work. The creameries of the United States have been already mentioned, and agricultural co-operation is well developed there. Japan occupies a far more conspicuous position in co-operative effort than is generally realized, for in 1922, only twenty years after this kind of society has been introduced, there were 13,442 societies of the Raiffeissen type, but the country had been well prepared for agricultural co-operation by the ancient Mujin and Ko societies.

In tropical Africa probably the most notable achievement is that of the former Kilimanjaro Native Coffee Growers' Association, now known as the Kilimanjaro Native Co-operative Union. The Union consists of twenty-seven affiliated societies with 18,000 members and annual sales of coffee to the value of £50,000.[1] In addition to sale of coffee it is noteworthy that this union supplies spraying machines to its members to enable them to combat plant diseases, and it is generally admitted that native plots are now kept as free of disease as most European plantations.

The Gold Coast Government passed a Co-operative Society

[1] See Barnett, A. C. B., " Native Co-operation," *Eastern Africa Today and Tomorrow*, 1934.

Ordinance in 1931, but no Society had been registered under it up to 1933.

So one finds that combination among peasants nowadays is so common as to seem essential. This combination has been effected almost exclusively by co-operation, either of the Danish or of the Raiffeissen type, usually in order to satisfy the peculiar requirements of export trade. Furthermore, the technique of agricultural co-operation has now been fixed to a great extent, and experience shows that it must be followed fairly strictly if it is to be useful. It is time to turn back to the West Coast and consider its application there, for there is reason to suppose that agricultural co-operation could remedy many of the obvious defects which become apparent from a study of its agricultural history. There is, then, quite a definite idea of what is worth trying in seeking to combine West African peasants, and we can pass on to consider what the difficulties may be.

A peculiar difficulty that suggests itself at once is the question of mentality. It is frequently stated by critics that agricultural co-operation has been found to be working only amongst peoples of exceptional character and education. It is only natural to find that it is most successful amongst such peoples, and it is a debatable point whether co-operation may not be a cause as well as an effect of such superiority, but in any case the evidence prevents one from stating dogmatically that efficient agricultural co-operation is confined to such peoples. When we consider that agricultural co-operation, in a definite, recognisable form, is but half a century old, that it is already working well amongst European, American, Sinhalese, Indian, Japanese and West Indian negro types of mentality and civilisation, we should rather marvel at its apparent adaptability. It would be unreasonable to single out the West African, on the one hand, as a hopelessly barren ground for co-operative enterprise, while being forced, on the other hand, to admit a large measure of success among Indians with their bondage of social and religious restrictions under an exceedingly complicated system of economics and vested interests.

On the contrary, there are many signs that the West African is quite likely to make a good co-operator. Among larger tribes such as the Yoruba a very marked ability in working together

was shown in the spontaneous administration which sprang up when the large war camps settled down and became some of the largest towns in tropical Africa. It must have needed great skill to administer towns of hundreds of thousands on a democratic rather than an autocratic basis, so that there was such a degree of internal peace, cleanliness and prosperity: there are even grounds for believing that the population was regulated according to farming land available. An extraordinary instance of combination came to light recently as a complete surprise in the disorders around Aba in South-Eastern Nigeria, when the women were found to be acting in close concert in an area roughly ninety miles across. Native industries are very well organised and markets are systematised. A natural bent towards combination is shown in numerous important secret societies whose members are very loyal. A crude, often bad, though astoundingly popular form of mutual banking is almost universal, and one society of lorry drivers was known whose members paid a subscription for the pleasure of having their fines paid for them, which reminds one of the mutual society once started in Cambridge for insurance against Proctor's fines. There are several farmers' societies, many of which have received practically no European guidance or support. One case is known in which a village needed a weighing machine, and although it cost £50 the money was forthcoming at once from the several farmers in due proportion. A native deputation in the interior even made enquiry as to the cost of a central palm oil factory which they had considered erecting, and from time to time cocoa farmers have combined into very large but short-lived organisations in attempts to regulate prices, the most notable of which was a large combination of farmers early in 1931 that succeeded in holding up a very large proportion of Gold Coast cocoa for several weeks. This marked tendency of West Africans to combine is not altogether surprising, for it is a remnant of the tribal system where combination was essential to their social state. It is not at all improbable that primitive peoples are more conscious of the benefits of working together than civilised people, and only careful and sympathetic experiment can determine whether the pure technique of agricultural co-operation can be developed among them, though it certainly seems very likely.

Photo : C.M.S.

PART OF THE TOWN OF IBADAN.

This photograph, taken many years ago when foreign influence was slight, shows part of the town in its natural state, but cannot give a just impression of its immense size because the town is built on several hills. Such huge purely native towns as Ibadan (Pop., with farm suburbs, 238,000), Ogbomosho (85,000), Oyo (40,000) and Kumasi (20,000) are visible proofs of the West African's ability in organisation.

The first general consideration in applying agricultural co-operation is a platitude, but it must be stated. It must first of all be ascertained that there is a very real economic advantage in the particular scheme to which co-operation is to be applied. If the scheme, for instance, is for the bulk processing of raw products it must be demonstrated that a superior product is obtained and also that the merchants are prepared to offer a premium for this superior product which will allow an ample margin of profit, for too often good quality does not succed in getting its due reward. A thorough economic investigation must first be undertaken, but it seems so obvious that it is sometimes disastrously omitted. The first consideration then, is whether any economic result is likely to be secured by co-operation in any particular case.

The second difficulty that must be considered locally concerns credit. Even in the very earliest days of Portuguese trading around the Benin River it is clear from the accounts that some provision of credit had necessarily to be made to ensure a good trade. It was customary in those days for a Portuguese trader to leave the coast with the surrounding peoples heavily in his debt, though on his return voyage these debts were invariably liquidated before further trade was done. Later experience shows quite clearly that the credit facilities are necessary for all kinds of trading, for the West African needs money not so much for stock and implements as for family calls and to help him obtain a wife, but quite often when there is no very apparent reason. This is partly due to the improvidence of the native, which in its turn is largely prompted by his inability to save cash without thereby making himself at the same time a target for loan appeals from all his relatives and friends, for the native is not exactly an economically independent individual because he is not used to money and has no banking facilities. In regions where European trade has developed he usually manages to get credit nowadays from another native, who in his turn is an agent, or large credit customer, of a European firm. In such areas, co-operation would have to compete against a pre-existing economic system, and it could probably not do this successfully unless it also was able to make some provision for credit facilities. It is possible then, that in well-developed trade areas the first co-operative enterprises might

have to be credit societies, perhaps on the Raiffeissan plan, as they have been in India and elsewhere. However, it should be noted that credit had to be provided in India to relieve the peasants of the crushing burden of debt which is their great outstanding obstacle, whereas on the West Coast the object would be the far less serious problem of inculcating the proper use of credit and organised thrift. As time goes on, and especially when it is possible for the West Africans to keep larger livestock, the need of credit facilities will be felt more.

In the remoter areas where European trade has scarcely developed, and where the economic system is consequently simpler, co-operation would have a much clearer field, and it is probable that direct agricultural co-operation of the Danish rather than the Raiffeissen type, might flourish successfully at the start, without the intervention of credit societies ; for the West African at present needs comparatively little in the way of stock or implements. Moreover, in these areas there has been less disintegration of native life and government, and it is very probable that the sense of co-operation is more present.

Thirdly, in introducing co-operation the influence of personality has been considerable in civilised countries and will be all the greater with more primitive West Africans : the principle of co-operation is exceedingly simple, and its more refined practice does not demand much of the intelligence, but both will be grasped far more easily if they can be, as it were, personified. For this reason it is important that co-operation should be initiated by someone whose personality is likely to be appreciated by the natives and who should be definitely allocated to this work for a considerable period. After he has lived in the area some little time he should start in a patient and very tentative manner, feeling his way towards the exact technique with a few small societies, continuously keeping in the closest and most intimate contact with the people. Then as soon as it is perfectly clear that the particular scheme is really successful and appears to have in it some degree of permanence, it should be gradually extended in area. The process may seem slow, but it must be remembered that the premature extension of an ill-adapted scheme will result in incalculable harm. But from the first great care should be taken to leave as much as possible of the executive work of the societies in the hands of

the natives, for the societies must ultimately be almost entirely self-supporting, and it is better that the natives should learn this at the beginning than that they should collapse as soon as external help is withdrawn, and one may be quite sure that if a few really good societies have been started others will quickly follow. The aim would seem to be to develop a good co-operative technique which by its own merits would excite native interest and thus of itself provide the requisite energy for the growth of extension work, so as to leave Europeans free to control, direct and supervise.

Obviously this kind of work needs special qualifications beyond that of the ordinary agricultural officer. It needs some agricultural knowledge and as much practical knowledge as possible of the working of co-operative societies, combined with exceptional gifts of sympathy and tact to understand the people and win their confidence. It would probably be best to choose men with experience and aptitude for native work and give them special co-operative training, and they must be allowed a good deal of latitude in their work. For these reasons it would be best to place them in a separate division of the agricultural department and ultimately it would probably be found wisest to start a separate Co-operation Department, as has been done in the Punjab, for instance.

In this connection the possibility of accepting the help of missionaries in co-operation work in exceptional cases should be considered. It is worthy work, and there are few men who make such good use of their opportunities of getting intimate with the Africans. But very few would be able to shut out their enthusiasm sufficiently to be able to treat co-operation in practice in a detached business-like way, and unless this could be done there would probably be disaster. The rural Catholic clergy of Belgium greatly helped co-operation, but on the West Coast the position is not so simple because there are divers religions. There is a great danger of the aims of co-operation becoming confused, and probably the risks are too great for missionaries to be able to help directly in co-operation, except in very special circumstances, but they could give invaluable indirect help and advice with their great knowledge and experience.

There remains the question of the regulation of co-operative

societies. It is manifest that unless some regulations are introduced with the full force of law, any sort of association of men, good, bad, or indifferent, irresponsible, dishonest or merely careless is entitled to call itself a co-operative society and do great harm to the progress of co-operation when it meets its well-deserved end. Co-operative law must specify the technique of co-operation as definitely as possible, and though it remains true that "one cannot put co-operation into the rules", yet broad experience has gradually stereotyped the technique and one can now certainly say whether particular rules will actively prevent sound co-operation. The rules of agricultural co-operation have behind them the solid weight of experience of successful co-operative enterprise in many parts of the world, and they should be strictly kept from the first and only modified cautiously when experience shows it is absolutely necessary. Co-operative law must also enable the authorities to keep track of all that is going on in co-operation and apply a proper control when necessary. It is essential to avoid a rapid uncontrollable growth of loose co-operative enterprise.

In the first part of this chapter great pains have been taken to regard agricultural co-operation from a neutral, dispassionate point of view as an economic instrument for doing business, because an historical analysis of co-operation convincingly demonstrates that unless it is so regarded and administered there will be no considerable growth of co-operative enterprise. Co-operation may appeal to a minority for wider reasons and, by subsidising the movement with the energy of their enthusiasm, they may even be able to give it some small degree of success and permanence, but unless co-operation does really deal with the hard facts of economics, it does not seem likely that it will be adopted in practice by most human beings in their present stage of development, it will not grow and flourish, and it will not therefore be able to exert those wider influences which we have to consider now.[1]

[1] On the other hand, see Strickland, C. F., *Co-operation for Africa*, 1933. This author has great experience of co-operation in India and considers that it would be a mistake to make too narrow an appeal for co-operation in the case of the African. It is true, for example, that there are many "Better Living" Societies in India, but it seems equally true that these societies followed after, rather than preceded, the Credit Societies. It must be

It would be frantically academic to pretend that the previous discussion gives a complete picture of agricultural co-operation, even though it may contain the essential principles upon which agricultural co-operation may be founded and developed, for one is obliged to recognise that where agricultural co-operation is general and successful it has given rise to reverberations, as it were, which are so important that any account of co-operation which omits these secondary effects is positively unreal and misleading. The reverberations of co-operation are very desirable in themselves, but this should stimulate us to make co-operation economically possible rather than encourage us to fall into the temptation of forcing on what may be unsound co-operation in order to obtain the benefits of secondary effects, for well-founded co-operation will spontaneously generate reverberations, while the converse has been proved to be untrue.

One of the most obvious effects of sound co-operative enterprise is the desire it quickly arouses in neighbours to imitate its success. Some part of this is no doubt due to the simple and open way in which its business is conducted, in contrast with the naturally more secret methods of private enterprise, but a great part is due to the fact that the members who direct the business are farmers who formerly showed no special business capacity, and the bystanders may with reason argue that what men of their own stamp have done they ought to be able to do themselves. But whatever the reason may be there is no doubt about the fact that when a sound co-operative technique has been evolved it spreads with amazing speed.

The rapid growth of co-operative dairies in Denmark has already been mentioned, and indeed the great network of agricultural co-operation all over the world is little more than half a century old. India furnishes another example of rapid propagation. In 1906 Theodore Morison (now Sir Theodore) was pleading the cause of co-operative credit societies : a year

remembered that this author treats of co-operative societies in general and does not confine his attention to specifically agricultural societies. He appeals for thrift, consumers' stores, housing and betterment societies to give an opportunity to the urban intelligentsia for doing social work. In Egypt such societies are acting splendidly in this way, and administrators ought to consider this very seriously, as the results are so exceedingly valuable in every way.

later there were only 149 co-operative societies of all kinds, but in 1925 there were 46,788 agricultural credit societies alone. Equally important is the natural tendency of sound agricultural co-operation to spread out from one part of farm work into other fields of agricultural enterprise. The success of a Raiffeissen credit bank, for instance, will encourage the villagers to buy and sell seeds and manures co-operatively and later on perhaps to build and manage a co-operative sugar beet factory. The co-operative method which proved so successful in Denmark with dairies spread to the bacon-curing industry, then to egg and butter export, then rapidly to breeding societies, to control societies, to purchase and sale of farm requisites and to credit associations, until now co-operation covers almost the whole field of agricultural effort.

These innate properties of propagation and extension which co-operation possesses must inevitably lead gradually to the integration of agriculture, to a natural organisation which has grown up in a reasoned way in response to progressive demands from the base to the apex, from the local to the central. It is an organisation which results from the continued pursuit of the aim of ensuring to the producing farmer the largest possible share in the profits. That co-operation leads to a workable organisation of agriculture is a demonstrable fact, and whether it is the ideal organisation must be largely a matter of speculation, but when one considers the tremendously disintegrative effects of modern civilisation upon native life it is a matter of the very greatest satisfaction to be able to single out co-operation as a positive, constructive, definitely integrative, unifying force, which makes use of the stability of the old tribal social system and yet checks the excessive individualism that is springing up and creating such difficult problems.[1]

But agricultural co-operation can claim to do more than reorganise agriculture, or even reorganise it on lines which

[1] See Faulkner, O. T., and Mackie, J. R., *West African Agriculture*, 1933, p. 89.

It is suggested that co-operation might be objectionable on the grounds that a rival organisation, as it were, would interfere with the authority of the chiefs and so tend to disrupt native society. This seems very unlikely, for the native can distinguish and hold several loyalties, and clan groups can cut across local groups without harm. No one can expect that all progress, social, economic and scientific can only be brought about solely through the chiefs. Such a view would be founded on the error that the chief is an autocrat, rather than a representative.

would seem more favourable to progress because they are based on the needs and desires of the farmers themselves. Co-operation gives a type of organisation which is extremely flexible and very responsive to agricultural advance. For instance, the pasteurisation of milk became standard practice in Danish co-operative dairies within six years of the discovery, a year before it was made compulsory by law, and the formation of co-operative control societies has done much in putting into practice the latest results in animal selection and nutrition. Even new methods or materials which do not come within the scope or administration of co-operative societies find a responsive medium in these co-operating farmers. It is indeed estimated in Denmark that an agricultural improvement of an average order becomes generally applied three or four years after its discovery, whereas probably three times this period would be required for its propagation in England. And one must also remember that the improvements brought about by co-operative societies in the practice of agriculture are not confined to the co-operators themselves, but echo increasingly in the whole body of the agricultural public in the country.

But the reverberations of co-operation amongst agriculturalists extend beyond the immediate or even future practice of their art. There is a mass of evidence to support the contention that agricultural co-operation exerts a quickening influence upon rural life generally and is one of the most powerful weapons for dealing with what is called "the rural problem". One may read Wolff's account of the Westervald,[1] where Raiffeisen started work in 1860, of the pitiful state of the peasantry there who "have long lain helpless . . . suffering in mute despair the process of gradual extinction" under the crushing burden of Jewish usurers, or of the Duchy of Saxe-Weimar, "a forlorn district, something like a rural Seven Dials", and compare it with his accounts in 1863 when "one is afraid of falling into a strain of rhapsody in describing all these results". Pratt's conclusions about the 'silent revolution' which has resulted from co-operation in Europe have already been quoted, but the case of India is nearer to our problem: take Sir Theodore Morison's appeal in 1906[2]: "One cannot help looking wistfully

[1] Wolff, *People's Banks*, 1914.
[2] *The Industrial Organisation of an Indian Village.*

for the introduction into these Provinces of co-operative credit institutions which would have this educative effect upon the people and heal the sores which usury has engendered in the rural economy", and compare this with Darling's statement in 1925[1]: "It is now an accepted fact that co-operation is indispensable to the well-being of the smallholder, and it is therefore matter for congratulation that one form of it at least, the village bank, has taken root in India", and he goes on to report the success of co-operation in reducing debt, in obtaining credit and in consolidating holdings, and he observes signs of moral progress in the desire for education and the formation of arbitration societies.

But to return to the West Coast, the crux of the matter is rather to suggest what particular things could be done by co-operation. In cocoa growing there are possibilities for societies in the fermentation of raw cocoa into exportable cocoa. The receiving or rejecting of raw cocoa at a centre, the controlled fermentation and careful drying with proper equipment, the bagging and storage of the cocoa in a properly constructed store to avoid mouldiness, and the ultimate selling, all seem quite feasible and likely to result in better quality and more profit to the actual growers. In palm products the possibilities seem hopeful: hand presses costing a few pounds would probably no longer be beyond the reach of the farmers if they could work them co-operatively. If the social consequences could be circumvented it would be possible to introduce small power nut-cracking machines and separators, and the prospect of large co-operative central factories costing thousands of pounds for the machine extraction of palm oil does not seem at all fantastic when one considers that it has already been suggested spontaneously by the natives themselves in one case at least. These fields of possible co-operative enterprise that can be seen now are, however, small compared with what might easily eventuate. Many tropical crops like tea, rubber, coffee and sugar cannot be grown successfully by peasants, not because of difficulties of cultivation, but because they need expensive machinery for processing. There is no reason why such expensive plant could not be bought and run co-operatively and

[1] *The Punjaub Peasant in Prosperity and Debt*, 1925.

so widen the possibilities of farming that almost all tropical crops could be grown. If it were possible, in considering the practicability of agricultural schemes, to think not "Is this possible to a West African farmer ?" but rather "Is this possible to a score or two of West African farmers ?" the whole face of West Coast agriculture would be changed. It is most welcome to note that agricultural co-operation is being considered very seriously by the government of the Gold Coast. Relying partly on practical experience in Ceylon, it has decided to begin the work by agreeing to pass a co-operative law, and several societies which propose to deal with cocoa are awaiting registration : the results will be of immense interest and importance to the future of West Coast agriculture.

Before leaving the subject of co-operative agriculture it is instructive to enquire why such a method of business should be able to exert such profound and peculiarly beneficial results. In whatever way agricultural co-operation originates, once it is an economic success the farmer members become conscious of the fact that it is their own efforts which have accomplished such a result. It becomes obvious, in fact, that self-help and especially collective self-help can obtain its reward, a fact all the more easily recognisable because the methods used in co-operation are so simple and open. The peculiar virtue and power of growth possessed by successful co-operation resides, then, in the cardinal principle of collective self-help. The power of self-help is drawn out from individuals, it is truly educative and like most qualities it grows with use : forces and conditions it formerly seemed impossible to modify no longer appear inevitable : possibilities are disclosed where previously there was no hope and so co-operative self-help grows and spreads from one part of agriculture to another, integrating, improving and widening until it embraces the whole field of agriculture and reaches out ultimately into moral and social realms. But we must never allow the contemplation of the glowing vistas of potentialities in agricultural co-operation to distract our attention from the duller foreground of sound economics on which it must always be founded. Sir Horace Plunkett expressed this pithily in his famous dictum : "Better business, better farming, better living".

CHAPTER VII

SCHOOLS AND THE FARMER

IT would be much more fashionable to have entitled this chapter "Education and the Farmer", but it encourages an unfortunate and rather dangerous tendency nowadays on the West Coast to overlook the fact that education given in schools is not the whole of education. The farmer, like other people, begins his education in the family and community into which he is born, then he goes to school, and after that he would be educated further by such a thing as membership of a well-managed co-operative society, or by seeing good farms and discussing them with his friends, but he would probably be educated most of all when he actually began to farm for himself. One must be careful to keep this larger education always in mind because it seems particularly important in agriculture, and we shall be better reminded of it if we think of the partial problem we have now to discuss as "Schools and the Farmer".

Educationalists are in much the same unfortunate position as statesmen and mothers, for they are constantly being given gratuitous advice and always being urged in different directions. Missionaries, traders, officials and professional men all clamour for different things. Some ask for literary education, some want it to be commercial ; some are sure that training in handicrafts is best, and all sorts of cranks want their pet subject put in a prominent place in the curriculum. Among so many voices the agriculturalist must give some justification if he is going to be heard. Agriculture is the chief occupation on the West Coast and most of the money for education will be derived from it. About half of the pupils who pass through the schools will, one hopes for the future of the Coast, become farmers, and nearly everybody there will have something to do with farming. The question then arises whether the restricted point of view of the agriculturalist is one that is likely to be generally useful, and

one which the educationalist might properly regard. Of course it makes it easier to split up a complicated question like education and consider it piecemeal ; this makes it simpler, but it also makes it less true because one then sees only one part out of all relation with the rest ; but in this case the part that is concerned with agriculture is so very large that there is not much danger that it will be very untrue of the whole.

One is rather apt to forget the important fact that there was formerly, and to some extent still is, a purely native type of education in the tribal schools or societies that were held in the bush for both boys and girls about the age of puberty, but education as we think of it in the form of schools in the European sense was started by missionaries, and until quite recently they received very little help. The history of West Coast education is very much like that of other primitive countries that have come into sudden contact with Europeans ; it began with the introduction of what was practically English elementary literary education. Much has lately been written upon the unsuitability and absurdity of this : one used to find English readers fifty years out of date being used in the schools and hear the children reading about hansom cabs when they had never seen either a horse or a cab, or discover that they seemed to know far more about the geography of England than they knew of West Africa. Such extreme cases have actually happened, but it is only fair to acknowledge at the same time that this literary type of education was sometimes very good, and it did produce many men who would be a credit to any nation, and when we make our rather obvious criticisms of the less supervised efforts of the missionaries, we ought to remember their good work too, and bear in mind the difficulties that they had to overcome.

The chief aim of the missionaries was to train evangelists and teachers for the furtherance of their own work, but the governments and the traders were anxiously searching for clerks and assistants who could speak, read and write English after any fashion, and they eagerly absorbed the pupils from these missionary schools : however, they soon began to complain of these pupils who, they said, were appallingly inefficient and bore far worse characters than the untouched native ; indeed this was often true, but it is wise to recognise that the

employers were much better off than if they had no clerks at all, for however poor the quality of these pupils, they were undeniably in demand then, and the West Africans at least realised it. Naturally enough this type of education soon became extremely popular because it opened up many prospects of a higher scale of livelihood.

The first schools were of course started in the towns with the children of the upper class of town dwellers, especially the foreign black clerks brought from Sierra Leone, and the pupils in turn mostly became town dwelling evangelists, missionary teachers and schoolmasters, clerks or trading assistants: but some of the pupils, unfortunately very often those who were not qualified enough to get any employment whatever in the town, went to the villages in the bush and either with or without missionary supervision, set up primitive rural schools to satisfy, or perhaps take advantage of, the vast popular demand for this type of education, and they reproduced very badly whatever little learning they had managed to absorb. So large numbers of rural schools began to spring up all over the country: they were at first called 'bush' schools, but the name is a little objectionable, and perhaps 'hedge schools' is a better and kinder equivalent.

Matters went on like this for some years until definite alarm was aroused as these hedge schools multiplied and passed out an ever-increasing flood of loose-charactered, poorly educated boys into an obviously limited and already over-crowded market. Criticism of the whole system became stronger: many people seemed rather to imagine that the missionaries did not realise what was happening, but actually they probably knew what the faults of their pupils were better than most, and for a long time they were the only people who were actually in contact with the practical difficulties. So far as their limited resources of money and time allowed them, they tried experiments, and after a time governments began to take their part in education, but the problem as a whole was only brought to wide public notice when the Phelps-Stokes Commission of educationalists visited East, South and West Africa and published their reports. Perhaps their greatest constructive contribution to the problem was to emphasise that education should be adapted to the needs and environment of the people,

and since then much thought and discussion have been given to this aspect.

Meanwhile the general educational situation had been developing so fast that it was rapidly getting out of hand. It was a situation that must have been unparalleled in Europe ; there was a huge increasing demand for the old type of education, and the number of hedge schools had been increasing rapidly from year to year in a rushing logarithmic curve. The thirst for schooling was amazing, but the danger of allowing this unsuitable and very poor type of education to spread and become established was realized, and it has now been checked and controlled until good teachers are ready. The governments have recently shown great activity in educational matters, both as independent educationalists, and as contributors to missionary effort, and teachers are now being trained for the mass education that will soon begin again. The whole problem of education has been reviewed, and it is still to some extent an open question as to what the teachers who are now being trained will teach.

For the present there is no need to discuss the whole range of schools on the West Coast. We may put aside town schools that mostly consist of clerks' and artisans' children who will almost certainly become town dwellers when they grow up, and we need not at present consider the special problem of secondary schools that will normally affect very few people, but we must examine very carefully the educational needs of the great bulk of the people who were just beginning to be reached by the primitive 'hedge schools' in the bush. At present this mass schooling has been checked, but it will soon begin again in earnest. These schools of the future that will deal with the greater part of the people will be in rural or semi-rural surroundings and they will reach, and one hopes mostly reach, farmer's children. One hopes, too, for the sake of the West Coast, that most of them will become farmers, but it is well to get as accurate an idea as possible about the proportion of boys that may become farmers in these schools because one often hears, or is led to think, that this means perhaps ninety out of every hundred. Yet even in countries where farming is extensive and is the commonest occupation, it is rare for more than half of the male population to be actually engaged in farming, the rest

being in the numerous subsidiary services, so let us say then that perhaps half of the boys in these schools may become farmers in the future. One ought not to forget that women, too, do a good deal of lighter farm work, more especially in carrying goods to market and selling them, and though the tendency will almost certainly be for much of this to diminish, even so, the girls also will have much to do with agriculture.

It is well to hope that half of the boys will become farmers, but it is better to realise that it is certainly not practical to assume that this will happen automatically. It is all very well to complain, as one often does, that so few children on the West Coast wish to become farmers, but it is almost futile to urge them to farm because at present it often means making a great sacrifice. Quite often a youth would not be given any land at all to farm for himself when he leaves school and sometimes only very little, and in any case he will earn little as a farmer in the majority of cases, for on almost all counts farming is much less attractive than other occupations that are open to him. This is largely because the full profits of farming do not reach the farmers and because the details of land tenure require adjustment to fit present circumstances. If this hope is to be fulfilled farming must be made more attractive than it is now.

Then one visualises schools beginning to reach the masses of the population, as 'hedge' schools first began to reach them. They will be schools in a rural or semi-rural environment, the children being mostly farmers' children closely bound up with agriculture in their daily life and about half the boys will actually become farmers themselves. This means facing an aspect of education that differs considerably from the urban schools of to-day which are patronised by professional men, clerks and artisans and whose pupils will become town dwellers in their turn. What can be done under these conditions to meet the needs for good agriculturalists ?

One thing at least is certain ; these schools cannot 'make' good farmers. One cannot expect a school to turn out good agriculturalists, any more than it can turn out good trading assistants or mechanics, because the pupils may not all have natural ability which can be drawn out in this direction and

because they are occupations which demand more knowledge, first-hand experience and developed character than any child can possibly achieve in the time. It seems impossible, even if it were desirable, to teach agriculture in schools. Agriculture is a many-sided art and many of its aspects cannot possibly appeal to, or be appreciated by, children ; furthermore, it must to a great extent deal with personal manual labour if it is to be learnt well, and children are not strong enough to carry this out. Direct teaching of agriculture in schools has often been suggested, but so far it has not been within the bounds of possibility. If we can neither make agriculturalists in schools nor even teach agriculture directly, then what can we do for agriculture in schools ?

As a result of world-wide experience, it is daily becoming more and more obvious that the kind of education that has done most for agriculture has not been instructional nor technical, nor even vocational, but cultural, and one finds this now accepted as a guiding principle in Scotland, in Wales, and quite frequently in other countries, though England as a whole is still not perfectly convinced. The clearest example of all may be studied in the Folk High Schools of Denmark : some say that the influence of these schools on Danish agriculture has been immense, others will only admit that it has been considerable, but no one who has studied the case will deny that good farming and schools have been very closely related in this case. It is all the more remarkable when one considers that the pupils in these schools were experienced adults to whom it would have been quite practicable and apparently more desirable to have applied the alternatives of technical or vocational training. It is well worth while reviewing this tangible achievement of an improved agriculture by means of education to see what we can learn from actual practice before we have to resort to theory.

Towards the end of the eighteenth century the peasant liberation movement reached Denmark, and revolution was only avoided by introducing land reforms which took all the land of the old arable mark and parcelled it out again to the peasants as small consolidated individual farms, so that Denmark emerged as a nation of small peasant proprietors. The following years were marked by an extraordinary agri-

cultural prosperity which ended abruptly when Denmark was forced into the Napoleonic Wars in 1807, and for the next twenty years the country remained poverty stricken and sunk in apathy, a mere wreck of a country whose agriculture was probably not one whit better than the worst peasant farming in Europe. In 1824, however, a new period of prosperity began which only suffered a temporary check in the Dano-German war of 1848 : agricultural prosperity was again affected by the much more serious Dano-German war of 1868, but the country then has much more courage and stamina in the face of the great misfortune. In spite of the loss of Slesvic, the closure of the German markets to Danish grain, and, soon after, the flooding of the European markets by the cheap grain from abroad, which proved so disastrous to European agriculture, Denmark was not only able to weather the storm by shifting her whole system of agriculture from grain to stock farming in the course of a few years, but was also able to obtain the agricultural supremacy which she maintains to this day. It is clear that some new factor was at work in Danish agriculture in 1864 which gave it a remarkable power of resistance under strain and a flexibility which it by no means possessed in 1807.

If we search through this period from 1807–68 looking for this new factor we are forced to conclude that it must have been the Folk High Schools which had their origin in the influence of a very remarkable man, Severin Grundtvig. He was a clergyman deeply versed in Norse mythology, and during a visit to England in 1829 to copy Anglo-Saxon manuscripts he became greatly impressed with the industrial activity of England as contrasted with the torpor of Denmark, and with English practicability as against the fashionable Teutonic habit of abstraction that was paralysing the educated classes in Denmark. For many years he pondered over the sad apathetic state of his own country, and in 1832 he wrote an introduction to his book on Scandinavian mythology in which he suggested that folk studies might be used in enlightening and enlivening the common simple people and first sketched out his idea of the Folk High School. He first put his ideas into practice by lecturing on mythology, Danish history, poetry and folk songs in the simplest and most unacademic style, and the success of such lectures was so great that lecture associations were soon

formed all over Denmark.[1] Although this work of his affected Denmark so strongly at the time, it was very personal and would probably have ended soon after he died if his conception of the Folk High School had not been realised as a permanent organisation. The first was started in 1844, but Grundtvig's ideas were not fully translated until five years later. These schools soon became popular and grew until they now take about nine thousand pupils every year.

The Folk High School is a kind of very simple, privately owned, rural college where living is so Spartan that the whole cost of a six months' winter course is low enough to be within reach of nearly all. The students are usually young farmers over eighteen who have had an ordinary elementary education followed by apprenticeship to working farmers for two to five years. At first the subjects taught were mainly folk studies and Norse mythology, but nowadays general history, geography, natural science, political economy, poetry, religion, Swedish exercises and folk song; all these are presented, rather than taught, in the simplest possible way so that they may appeal to such homely young men. The lectures are quite informal, and a very strong point is made that the students should listen very closely to the living voice of the lecturer, rather than take notes, and there is no cramping syllabus because there are no examinations at the end. The Folk High Schools, indeed, have never tried to prepare their pupils for a life of study, but have aimed at enlightening and enlivening them so that they can return to their daily work with a deeper understanding of human life and its problems.

It is quite obvious that there is no direct connection whatever between the Folk High Schools and agriculture. It seems even more extraordinary to find that there are scarcely any agricultural schools in Denmark, and that even in these schools agriculture is treated entirely theoretically and that the course follows Folk High School traditions very closely. Yet even by 1890 it was abundantly clear that they were rendering immense service to farming: at that time only sixteen per cent of the male rural population between the ages of twenty and fifty had

[1] There are now a thousand of these lecture associations with an average membership of one hundred.

attended these schools, yet of the chairmen of the Co-operative Dairies Society, that is peasant farmers elected by their fellows to guide their mutual affairs, 54 per cent had been at a Folk High School, 23 per cent at an agricultural school, and only 2 per cent at a dairy school, while 90 per cent of the managers of these dairies had been to these schools. These results were achieved by providing a simple cultural education in everyday matters, and not by giving these young men that abstracted, inapplicable looseness of thought that is so often called culture. The mental horizon of the student was widened, but it was never allowed to disappear in a haze : the students still had their feet very firmly on the ground, even if their heads were in the air, because they had never been taken right away from their natural, real, everyday environment. And in other countries, too, one will find that a simple cultural education has done most for agriculture, though it may not be so easy to trace the connection as clearly as in Denmark.

One must put aside a natural temptation to translate these particular methods to the West Coast, for a moment's reflection will show that it is impracticable. Grundtvig's own principle was largely to replace the more abstract classics of Greece and Rome by the nearer, more homely mythology and national treasury of the past that were more suitable and needful for simple people, and even these could only reach fairly mature minds. Indeed, he found by experiment that his proposal to take boys at the more receptive age of fifteen was impracticable because they had not the necessary experience of life to appreciate what they were told. An appeal on such a basis is almost totally lacking on the West Coast, and even if it were available it could not reach children in schools. One must have a cultural education simple enough to appeal to children, and dealing with some part of their real everyday environment. In elementary schools reading, writing and arithmetic fulfil all these, and so can geography and history, if well presented, but there is a much more obvious and more general subject in elementary biology or Nature-Study, which is the cultural side of agriculture, and of health, and is, in fact, the centre of the whole of rural life.

Most of us will not find it difficult to agree so far, but when we consider this logical conclusion in its practical setting it

really does seem rather ridiculous. In most people's minds Nature-Study has almost as feeble a reputation as the teaching of botany in girls' schools years ago, and it appears ludicrously ineffective to teach West African children Nature-Study to improve their farming when those who know the West Africans will tell us that they have forgotten more about farming in their country than we have ever learnt. Strangely enough, when one ponders the matter, it does indeed seem literally true that the West Africans do indeed know so much about agriculture that they have forgotten their knowledge and, paradoxical as it seems, it is for this very reason that Nature-Study will help them. Let us go into this carefully.

The general unskilfulness and lack of precision in farming on the West Coast is a reflection of a correspondingly vague habit of thought, which is traceable to a general lack of appreciation of procedure from cause to effect; the natives think in terms of tradition which cannot be explained, and therefore gives no opportunity of thinking, while the practice that results from this mode of thought must itself necessarily show a lack of judgment.

This is more clearly seen by a study of a few examples. The natives of Sierra Leone will not walk about in the bush at night without lights because they say that there are 'devils' in the bush; Europeans also refuse to do this, but because there are snakes. The effect is the same, but not the ascribed causes, and hence any remedies that might be taken are quite different. Again, it was discovered recently that yams were not planted in Benin until June, while in the nearby Oyo Province it is the custom to plant in January. There seemed to be no reason why yams should not be planted earlier in Benin, so as to reap the benefit of a longer growing season, and yet the natives all said that they could not do it, though they could give no reason for their very positive statement. Eventually a trial was made to test this, and it was found that a beetle attacked the planted yams in the early part of the year, but did not do so later on. Here there is knowledge of effect, derived from tradition and not at first hand, but no sign of cause and no marked desire to determine a cause; it was simply bad practice to plant in January, and nobody would think of doing so.

Then in other cases the natives have not perceived the bad effect of certain agricultural practices of theirs; for instance, they do not perceive that it is bad economy to leave diseased branches on their cocoa trees because they have not observed that when the disease is left to itself it spreads to neighbouring branches and ruins the tree; in other cases they have observed an effect, and though they have not been able to ascribe it to a cause, yet nevertheless they have developed a mystical or traditional knowledge and remedy; in fact, they often know what should be done but not why, presumably because the reason, being of less real importance than the practical remedy, has been lost in antiquity. Tradition in such cases merely gives an instruction which admits of no explanation or understanding, a specific, rigid fact of detail with no free play for thought or judgment, and hence neither applicable nor adaptable to a new set of circumstances.

Where there is an ignorance of effect, there is naturally no remedy in their system of agriculture; where there is a knowledge of effect, but not of causation, there is a detailed practical instruction, which, however, is specific, admits of no compromise or adaptation, and may or may not be effective. Traditional knowledge should neither be underestimated nor overestimated, but proved by its merits in each case. Generally it has been particularly valuable in the crafts, but its use in agriculture is not so great because agriculture is more varied and changeable, and the element of personal judgment is called into play so frequently since it deals with living things; to quote Adam Smith:

"The man who works upon brass and iron works with instruments and upon materials of which the temper is always the same. But the man who ploughs the ground with a team of horses or oxen, works with instruments of which the health, strength, and temper are very different upon different occasions. The condition of the material which he works upon too is as variable as that of the instruments he works with, and both require to be managed with much judgement and discretion."

This does not mean that traditional knowledge in agriculture is useless, or even that it should be treated as of little account. On the contrary, it is fairly certain that we have a great deal to learn from the four and a half centuries of experience in

growing imported food crops which the natives have had, though much less in the case of the more recently introduced export crops. Rather extreme cases in traditional knowledge have been taken in order to make clear its inherent weakness; it has served its purpose in the past, when there was not the same necessity for efficiency in farming that there is now, but it is not sufficient for present needs and, what is of far more importance, it is much too slow-growing for the demands that agriculture will inevitably make in the very near future.

In the case of medicine, too, the replacement of traditional knowledge by something more exact and better adapted is even more urgent. One must remember that it has been very difficult to connect cause and effect in medicine, for highly civilised nations have only succeeded in elucidating many fundamental points in human tropical pathology during this generation with the aid of expensive and intricate apparatus and the patient application of some of the finest brains in the world. It is very unlikely that the natives will be able to help themselves very much with their traditional knowledge, and indeed it is in the realm of human medicine that mystical causes, and mystical remedies, have been developed to their greatest degree; but without doubt they have probably a great deal to teach us through their herbalists. Here again the progress of knowledge by traditional means is far too slow for present needs; we should go further and say that present traditional knowledge is bound to languish and die out by the impact of civilisation, in this case too often represented by the patent medicine. There is some evidence that this has already occurred in some cases, for some Africans have lost all knowledge of the properties of such a drug as *Strophanthus*, while more primitive neighbouring tribes are well acquainted with it and still use it.

When traditional knowledge has been amassed, patiently analysed, carefully tested and then re-synthesised there results a knowledge of principles which contain in them the essence of all the details; this is in fact science, or organised knowledge, giving principles of general applicability which are adaptable to the circumstances under particular consideration. Whereas in the case of traditional knowledge we have to deal with an incredible number of specific, rigid instructions, in the case of scientific knowledge we have to work with a few general rules,

with the added element of judgment ; there can be no question which is the more intelligible and which consequently gives the clearer thought, from which must flow the more precise and better regulated action. This is the crux of the matter and the reason why we should teach Nature-Study. We wish to impart comparatively few proven and demonstrable principles of general applicability, and this will partly take the place of a mass of inscrutably authoritative, specific traditional instructions, and it will also add new biological knowledge. There is no need to visualise the wholesale uprooting of indigenous traditional knowledge and its replacement by foreign scientific principle, but all that is necessary now is to agree that this must be the plan on which we are bound to proceed.

But no one can expect scientific principles to commend themselves readily to the Africans unless it can be shown that these are reasonable and useful, otherwise they are merely being asked to accept a foreign set of ideas instead of their own, when to them there is no clear reason why one idea should be superior to another, except in so far as they may be tinged with strange or familiar hues. The point is that scientific principles are universal and have no human bias, they are demonstrable practically, and they should be demonstrated wherever possible in order to give the natives confidence in this new system of theories. The appeal is not, as it were, to a new white man's fashion in theory, but to more absolute, provable facts and the invitation to realize the inevitableness of cause proceeding to effect. One leads them to look to the plant or the animal for their facts and not so much to the mystic or the pedant.

It is convenient now to take stock of the position. Experience shows that where agricultural prosperity can be related to education, the education has been cultural and not vocational. A cultural approach to agriculture from a social or economic aspect is not possible with children, because they have no experience of life which could make these subjects appeal to them, but one would very likely be able to reach their interest from the scientific side by teaching them elementary biology or Nature-Study. The chief aim in teaching Nature-Study is to give full play for thought, encourage judgment, and arrive in the end at a better regulated action. On the negative side this involves the replacement of traditional knowledge by

scientific principles whenever possible so as to free the Africans from blindly and mechanically obeying traditional instructions which may be very ill adapted to peculiar circumstances, and on the positive side Nature-Study will bring new knowledge of their biological surroundings to the Africans.

So far the point of view and needs of the agriculturalists have been considered exclusively, but since they lead to the teaching of Nature-Study, which may include more than just agricultural knowledge, the field of survey ought to be broadened slightly so as to keep in contact with the more general needs. Nature-Study can be of use to the farmer and it would help the forester equally well. We should enlarge it so that it can include not only the environment of the native, but also the centre of the environment, or person of the native, in matters of personal biology or health by teaching elementary hygiene. What we want to teach, then, is an elementary biology, or what is ordinarily meant by Nature-Study together with elementary hygiene. This means that we have arrived at the point of view so eloquently advanced by Sir John Russell:

"For the upraising of country life necessitates a higher standard of education for the countryman; and education based on the wonderful book of Nature which lies open for all to read if they but could. How many farmers know anything about the remarkable structure of the soil they till, of its fascinating history, of the teeming population of living organisms that dwells in its dark recess; of the wonderful wheel of life in which the plant takes up simple substances and in some mysterious way fashions them into foods for men and animals and packs them with energy drawn out of the sunlight—energy which enables us to move and work, to drive engines, motor-cars and all the other complex agencies of modern civilisation? No one knows much of these things; but if we knew more, and could tell it as it deserves to be told, we should have a story that would make the wildest romance of human imagination seem dull by comparison and would dispel for ever the illusion that the country is a dull place to live in. Agricultural science must be judged not only by its material achievements, but also by its success in revealing to the countryman something of the wonder and the mystery of the great open spaces in which he dwells."

It is about these biological surroundings of the West African that we wish to teach the children in their schools in the bush,

and we wish to add to it a few simple facts about the central personal biology, or hygiene.

It is at this stage that many of us become impatient. Nature-Study has a very poor reputation, and while all would agree that it is at least harmless, perhaps most of us would say that it is without any apparent good effect and seems a waste of time. It has been taught for many years now in various kinds of elementary schools both in England and abroad, and seems not to have had any noticeable effect, so that it seems absurdly optimistic to expect that it will ever lead to a positive improvement of agriculture on the West Coast.

But what is this Nature-Study that has been taught ? · It is almost invariably as lacking in plan and thought as if one were to give a series of historical talks to children, starting in the first with the unfortunate Richard who was drowned in a cask of Malmsey wine, dealing in the second with the South African War, in the third with Alfred burning the cakes, then perhaps with the Crusades, King Canute and so on. Or as if we were to moralise on the formation of coal and commend the self-sacrifice of the primæval trees so that we might benefit by their stored-up sunshine now.

The first fault seems to have been that the necessity of teaching Nature-Study was not actually felt, but that Nature-Study was forced into the syllabus by enthusiasts and was generally accepted as being vaguely 'improving'. It was Nature-Study for itself, as an end in itself, abstractly, in much the same way that the Russian chemists studied the soil "as an object in Nature". The authors of the earlier Nature-Study books, with one or two notable exceptions, were not scientific men but the old-fashioned 'naturalists', who had a vast enthusiasm for their subject but were lacking in sound and wide scientific knowledge and criticism and consequently inclined to draw more general conclusions than the evidence warranted, and so were lead to moralise without a solid basis of fact. Indeed, one might well suspect that the old Nature-Study was found to be an excellent vehicle of moral instruction and that this strange compromise of science and morals was admitted into the syllabus when neither alone would have earned its right of entry. But even this abstract method of Nature-Study, pruned of all its moral

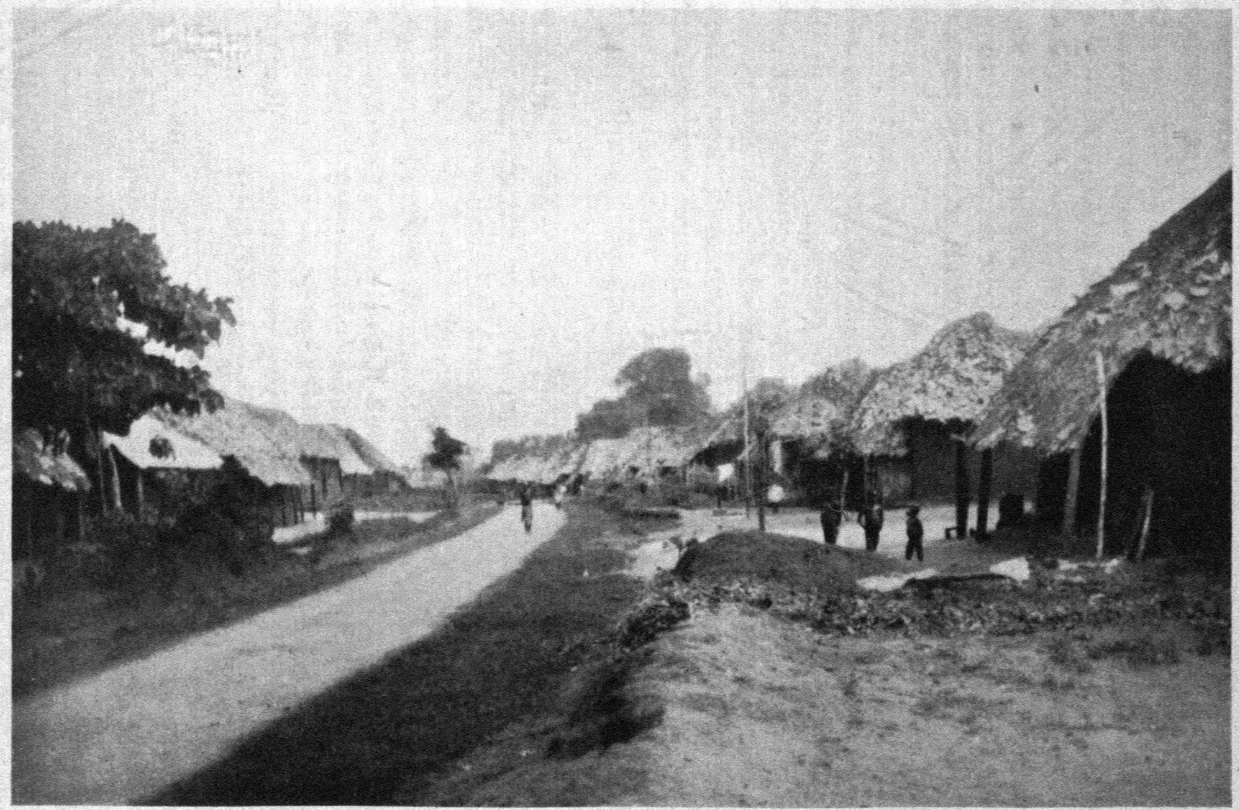


Photo by C. W. Wakeman

A West Coast Village.

This is typical of the thousands of villages which lie alongside the newly made motor roads, and serves to show the kind of surroundings in which rural education will be needed.

excrescences, is essentially a mature point of view unlikely to appeal to the child, who is by nature more practically inclined, preferring practical engineering to pure physics and rearing white mice to classifying plants. The old Nature-Study was a well-intentioned but misleading compromise, too vague and unrelated to the practice of life. It dates from the time when there was little of Biology as it is known to-day, but rather from the older days of Natural History when men were occupied in tracing phylogenies among the fossil records and classifying plants and animals. Most of it was quite literally as dry as bones and pressed plants, and often it could only be made interesting to children by adding unwarranted flights of imagination. The older Nature-Study did deserve a good deal of the abuse that has been heaped upon it.

But a new kind of Nature-Study has gradually been developed that is so essentially different that it is scarcely recognisable as Nature-Study at all. Indeed, its exponents dislike using this term for the modern idea, because they think it is a case of giving a dog a bad name and hanging it. The new Nature-Study has a more definite aim, having originated mostly as a result of recent rapid advances in the field of Biology, which is now in a position to render intelligible a great number of phenomena of everyday life which formerly were not understood. It has been felt that these newly discovered biological facts which deal with the growth and functions of plant and animal, more especially in their human applications as agriculture and hygiene, have such an important bearing upon daily life that it is a civilised and essential duty to place some elementary knowledge of them at the disposal of every child. The exponents of this new Nature-Study, too, are of an entirely different type. Its pursuit and direction is in the hands of scientific men with that still comparative rarity, a biological bias. They are more concerned with basic scientific facts and principles, presented as far as possible in a humanistic way, and less concerned with the somewhat loose moralising that characterised the older Nature-Study enthusiasts. This novel point of view has been developing for some years; it can be quite clearly discerned in a letter written in 1917 by a group of the more modern botanists, in which they plead for an attempt to teach students some understanding of the functioning of plants rather than a

mass of descriptive facts and theories of structure that are of very little value or interest to average elementary students. Since the War, the new Nature-Study has been developing fast through the efforts of a few far-seeing men who visualise the increasing importance of applied biology in the very near future.

The modern Nature-Study leaders are responsible for more than the mere introduction of biology into the syllabus. To do this alone would have been practically impossible, since it would have meant a considerable addition to an already overburdened course. Then biology requires some knowledge of chemical and physical facts and they found that in some directions these requirements were much more than satisfied, and that in others the basis for biological teaching was lacking and would have to be supplied. Partly on these grounds and partly on more general grounds they have re-modelled the whole syllabus of science teaching. They have simplified it, made it less formal and abstract, and put it as far as possible in relation to practical life. Therefore, while stressing biology, they have also striven to make a simple whole of Nature-Study rather than a series of separated studies in formal chemistry, physics, botany and zoology.

A revolt from the old formal teaching of chemistry and physics and the favouring of the modern idea of a simple, biological, humanistic and related whole is definitely beginning as a growing dissatisfaction is now being generally felt with the teaching of Science in schools. One may hear students say that they do not see the connection of chemistry and physics, which are as apart as history and algebra to their minds, while such a branch of science as physical chemistry is perfectly incredible. There seems now to be a concensus of informed opinion that these poor results are traceable to a too abstract and formal method of teaching, demanding more of a boy than there is reason to expect, and that in consequence there is a lack of any real understanding on the part of the pupil. The reason for this seems to be that physics and chemistry were among the first sciences to make rapid progress, while biology, which depends so much upon them, has lagged behind and not been taught. One therefore gets a strange inversion of what is natural : the inorganic sciences of physics and chemistry, which are largely abstract in daily life, are taught first, and organic

biological science which occupies an enormous part of everybody's real environment is taught last. For the vast majority of children science should be approached from the plant and animal ends, that is to say, from the point of view of everybody's environment, and not from what may seem a more logical beginning from the point of view of training them all to be scientists.

The new Nature-Study is therefore very different from the old Nature-Study : it has a more definite aim and it is thoughtfully planned, but its most valuable idea is the simplifying, correlating, practically orientated view of the sciences, especially biology, which it strives to give. It is not a training meant for scientists. The "Nature-Study Idea" is distinct, and it is very unfortunate that there is no new name to give it ; in order not to confuse it with the old type of Nature-Study, let us call it Natural Science, because this conveys the idea of a unity.

In applying the teaching of Natural Science there are several practical points which ought to be considered. Ideally one ought to know the present existing native philosophy on these matters so that one could retain what is good and know where to branch off from the old traditional knowledge to new scientific principles, acting on the general principle that one must make changes slowly so as to avoid the disintegration of native life and thought as much as possible. Studies in native natural philosophy should be greatly encouraged, and Africans and Europeans would be doing an invaluable service by amassing such ideas, but in practice it is very probable that native traditional ideas only become a hindrance to progress in the more advanced branches of knowledge, especially in medicine ; in the first rudiments of Natural Science one could proceed straightforwardly without the danger of destroying good indigenous tradition.

The exact content of the course of Natural Science in schools in the bush must be, to a great extent, a question of trial and experience, but one could certainly say that it is very necessary to keep the content as small as possible ; nearly all Nature Study books contain far too much. It is much better to study a few subjects very thoroughly and make sure that they are thoroughly grasped by giving plenty of examples, for West

Africans, in common with many other African races, have a very deceptive facility in apparently quickly learning a subject, thanks to a receptive memory. As a second general principle Natural Science should be taught as humanistically as possible, that is to say, from a human point of view rather than from an academic point of view. One should try to explain Natural Science examples as near the home as possible. There is, for instance, no need to tell the children about kangaroos until they have realised a few important points about goats or sheep. There is a third very important principle which ought to be pursued as far as it is possible. That is the question as to how far it is possible to teach Natural Science without putting a textbook into the hands of pupils. The natives are in the habit of accepting traditional facts without question; the critical faculty is a comparatively late acquirement in us all, but particularly so in the case of the West Africans because everything conspires to discourage individual enquiry. They naturally tend to accept at once, without any thought or further question, what is presented to them with all the uncompromising air of authority that a printed book has, and in addition their good memories make it easy for them to learn the textbook without understanding their subject. Natural Science is, after all, the study of natural objects and phenomena which are easily available so that one is in the fortunate position of being able to choose whether one should study the subject at first hand from the natural objects themselves (under teacher guidance) or whether one should study the subject second hand from a text book (also under teacher guidance). The first method is educative in the true sense, the second informative. There can be no question as to which method is the more desirable, and it must be a matter for experiment to find out how far this is possible with African teachers. Apparently it has been possible to do this with schools in the West Indies, and probably it could be done on the West Coast if the teachers were trained to do it. Of course, it is assumed that the teacher himself is supplied with a good and rather detailed guide to a course of Natural Science on which he bases his teaching and from which he may dictate notes to his pupils.

So far as one can see it will probably be possible to advance Natural Science as far as the main parts of plants and their

functions, soil and air, sun and rain, the elementary principles of plant physiology and from them to the main points in the cultivation of plants, contrasting animals and plants all the time. Then breeding and selection; simple insect pests with examples in relation to plant, animal and man; an example or two of plant disease and an example or two of human disease, particularly in relation to mosquitoes and clean drinking water. Then as the pupils get older and have a little more experience of life one could present a little more of the applied side. The advantages of growing plants together on a farm instead of collecting wild produce, what cultivated plants are and how they have originated, new varieties, the correct spacing of plants, and so on.

As far as possible the principle of this Natural Science should be actually demonstrated to the pupils to give them some real confidence in these foreign theories and fix them more securely in their minds. But the things that are chosen for demonstration should really demonstrate beyond all reasonable doubt and upon every occasion. Experiments that are liable to give uncertain results which may afterwards have to be explained away should be absolutely excluded at first because they destroy confidence and they introduce a vague element of trickery; for the same reason simple native apparatus should be used whenever possible so as not to distract attention from the experiment itself, and the students should take part in every stage of the experiment and not be presented in a flash with the result of an experiment carried out more or less in secret by the teacher, because this will give the air of an ingenious trick rather than a careful experiment. Later on it may be desirable to demonstrate some things in their practical side as improvements, such as a new variety of plant growing with its native counterpart, an excellent object lesson in seed selection; such examples could be taken in new varieties of rice and cotton, but very special care should be taken that spectacular results will follow. No other kind of field experiments should be allowed as a demonstration in schools unless this is the case because of the loss of confidence that invariably follows if the experiment fails. The third part of the teaching programme deals with the continued application of improved practice so as to lead to new habits. This is the character side of the Natural Science teach-

ing, whereas the teaching and the demonstration have been the intellectual side. Sound rules of agricultural and personal hygiene are put into practice so that they become habits. The development of manual skill is secondary, the primary object being the inculcation of the habit of continuous care which is absolutely essential in those who deal with living things.

The importance of continued cultivation of plants in school garden plots can therefore scarcely be overestimated, and if these plots can be definitely allocated to individuals, or better still to two partners, the sense of individual responsibility and effort is very greatly heightened; encouragement should naturally be given by awarding marks or prizes or in some other way making them competitive. The individual care of live stock would be an even more valuable method of inculcating the habit of care, because moving and obviously 'living' animals have naturally a far greater emotional appeal to children than the apparently comatose plant, and, further, they demand daily care and attention. The "Young Farmers' Clubs" which originated in the United States and have been successfully adapted in England, notably in Hertfordshire and Sussex, are extremely useful as examples which might be suitably adapted locally. In England these clubs are formed in rural schools, interested local ladies and gentlemen offering, or being asked, to become chairmen or members of committee and to loan funds for the purchase of livestock, while the captain and secretary are children. The child members are supplied with printed cards of instructions for feeding, general management, hatching and rearing, and the chairmen and members of the committee or the county organiser advise them further. Sufficient livestock is bought and balloted for by the members, who take them away to their own homes to care for and rear them. Reports are sent in and meetings held periodically, the stock being ultimately sold by auction if necessary. The usual livestock dealt with in this way is poultry, but it has also been used for table pigeons, rabbits, pigs and even calves.

On the West Coast it would seem possible to evolve something simple on these lines with poultry, which has the additional advantage of being likely to reward the members with obvious financial gains. One does not wish to appear to underrate the difficulties of adapting a suitable form of club on such lines,

or of the very considerable difficulties of administration involved, but they should not be allowed to deter one from carrying out experiments which, if in only a small degree successful, would, it is certain, result in incalculable benefit.

The important practical question now arises as to whether the teaching of Natural Science, its demonstration and its practice is at all within the bounds of possibility in schools in the bush in the present circumstances. The matter should first be approached by asking whether the general argument that has been set out is correct, and if so, whether the suggestions made will ameliorate the conditions on grounds of reason—whether they are satisfying, whether they do really cater fully for the needs, or whether others will meet the case to the same extent. If the previous argument and suggestions can be conceded, then it remains a matter of patient experiment, and experiment alone, to enable one to decide how far they can at present be carried in actual practice. There is nothing to be said for proceeding along some line merely because it is practicable, if it does not at bottom fully meet the requirements in view.

Undoubtedly the great difficulty that will occur to one at once in the practical teaching of Natural Science is the need for a very good type of teacher. Nearly all subjects that are taught need good teachers if they are to be learned well, but it seems that Natural Science in particular needs a degree of knowledge, common sense and sympathy that is too rare to hope for as a general rule. As matters are at present this certainly appears to be an outstanding obstacle which ought to be examined.

On closer investigation it does not seem that the knowledge required to teach Natural Science is actually so great, but rather that it is rare. Even now very few indeed of us are taught any elementary biology at all, either at preparatory schools or secondary schools, and the result is that biology is looked upon as an advanced and unusual subject which follows after a thorough grounding in chemistry and physics. Perhaps this is still the best way to train biologists, but for elementary purposes it is not necessary. It is possible to begin a Natural Science course almost directly at the plant and animal ends and advance a surprising distance with simple facts. Certainly the

more a teacher knows of biology the better, but when one puts out of mind the unusualness of biological knowledge and looks only at its amount it does not seem exceptionally formidable. Surely teachers in agricultural countries should have an unusual knowledge of biology.

Again, it is true that it certainly needs a great deal of common sense and judgment in arranging what exactly shall be taught and in what order and time. This applies with almost equal force to subjects which are more commonly taught in schools, and the difficulty is circumvented in the same way. It is really a question of designing a good course with a proper content, a reasoned order and illustrated with well-chosen examples. This need not be done by all the individual teachers: it is far better settled by a well-qualified man at the teachers' college. It needs sound and wide scientific knowledge and it deserves the utmost possible care, judgment and human understanding: it will demand experimentation, careful watching of the results and periodical modification: all this and more is essential in designing a Natural Science course, but it is not essential and need not be demanded of every teacher. Once the designer has decided on a Natural Science course he can impart it to the teachers and they to their pupils; he may, and possibly should, impart it with detail and require a strict adherence in the elements, for Natural Science is more likely to become loose than rigid, and as long as a subject deals with actual living material it is difficult for it to become stereotyped.

It is sometimes suggested that the most serious obstacle to teaching Natural Science is that it needs a sympathy and interest both on the part of teacher and of pupil to be successfully taught, and one fears that this may be lacking, and if so that it cannot be put there because these natural bents are innate and uncontrollable. This is probably true enough, but rather tilting at windmills because there can scarcely be a boy that is not spontaneously interested in natural things, which is a great deal more than one can say of arithmetic! And the untouched West African boy, and even man, is no exception. An outstanding characteristic of West Africans, along with other primitive peoples, is the vitalistic theory which culminates in their beneficent Earth Goddess: the West Africans have always been most deeply impressed (for interest is a mild word)

with the forces of growth and reproduction, increase and fertility, because they are the very reason of existence to any agricultural people, and their philosophy is expressed in the widespread fertility cults. Natural Science ought to be able to tap that vast native reservoir of deeply seated and most powerful emotional forces. The urbanised *déracinés* show a pathetically spontaneous interest when they take correspondence courses in hygiene, which is the only form of biological science that they know, and they show great interest and sympathy when Natural Science is taught. There is not likely to be any lack of sympathy, either in teaching or learning Natural Science, so long as it is presented simply enough for West Africans to be able to grasp it. One does not pretend that it will be easy to introduce Natural Science teaching in schools in the bush : the designing of a Natural Science course, the experimentation and the constant modification will need all possible thought and care : so will the training of teachers, and the teachers will have to work well and intelligently, but once the strangeness and newness of Natural Science has worn off it certainly does not seem an impossibility.

So far we have considered education, in schools in the bush, of an elementary type common all over the world, except for its strong rural and hence biological bias. That is to say, that as children grow up they will one day suddenly begin going to school and, with occasional holidays, they will go to school intensively every day until as suddenly they will leave. In Europe this is just before puberty, and in Africa during puberty, so that they are let loose suddenly on the world at a very critical time of the child's life. This has constantly been deplored in Europe, and the school-leaving age is gradually being pushed forward, but there is the practical difficulty that in Europe the youths are needed then to help to support the family. In Africa, where the same system is in force, it is possible that there may not be the same obstacle, and the point merits closer investigation than has hitherto been given to it.

At present even tiny children help with work on the land at times, but they mostly spend their time playing about the compounds. When they reach school age it would probably be best in all ways for them to go to school every day, but when

they get bigger they become more useful on the farms and they are often really wanted by their relations, as one can see partly by the casual truancy that is not uncommon. Would it not be possible to arrange matters so that they should go to school for a few days in the week and be allowed to help on the farms for the remainder? This would mean that school life would have to be prolonged if they are to be taught the same amount as formerly, but education would be less intense, it would leave off more gradually instead of suddenly, the pupils would be introduced to adult life gradually and might be subjected to school discipline and guidance perhaps long enough to tide them over the critical period of puberty.

There seems a great deal to be said for such a system, and it should be noted that the native system of education occurred at the time of puberty, when boys and girls went to tribal schools in the bush to be initiated. Certainly the instruction was predominantly sexual, but it also included masses of tribal lore of all descriptions, and one suspects that the natives chose to impart this knowledge at puberty not only as a convenience because they had to be there in any case, but also probably because their pupils were more receptive to certain kinds of knowledge than they were at other ages. The apparent dullness of West African children at this age is most striking and can be easily seen in school results; however, painstaking investigations in South Africa show that what actually happens is a sudden lack of interest in some school subject or subjects, and that if some new subject or interest is introduced at this point the pupils again make progress instead of remaining dull and stagnant.

If it should prove possible to prolong education in schools over the puberty period it would probably be found necessary to change the interests. This need not necessarily mean giving up part of education: on the contrary it may mean that one may be able to teach certain matters which cannot now be taught in schools at all because they need fairly mature minds to grasp them. The teaching of Natural Science might be more nearly related to the practice of agriculture and hygiene, and it might be possible to introduce some simple facts of the economic or even the social aspects of agriculture which at present can scarcely be touched upon.

For these reasons it seems imperative to investigate very seriously the possibilities of elementary schools of a much more elastic type, to which the pupils at times only go for a few days in the week, and where the holidays are arranged to fit in better with the farming seasons so as to help both the farmer and the school, to close up the present gulf between school and everyday life, to prolong education over a critical period and to be able to teach matters which are at present impossible. One wants to know the practical difficulties in the way from the point of view of the native people, the pupils and the teacher: and if they can be surmounted one is moving towards the proved success of the extension lecture and the simple Folk High School.

CHAPTER VIII

RIGHTS AND DUTIES IN HOLDING LAND

FEW questions have received so much interest and attention on the West Coast as land tenure. It has been freely and forcefully discussed for at least a score of years, and at one time nearly every essay on West Coast development dealt with it in a prominent place. No one, indeed, will deny that it is most important, but for several years there was a strong tendency to magnify it out of all proportion to other problems, so much that it was not uncommonly regarded as the greatest agricultural problem, for many took the view that the system of land tenure then in force effectively blocked all agricultural progress, and they were then led to suppose that once it was altered an agricultural millenium would be ushered in. But this is a facile idea based upon an inversion of thought, for it must surely be impracticable to try to grasp the massive spiritual inertia that must lie behind all land law, more especially on the West Coast, and expect to manipulate it dexterously and rapidly enough to serve as a positive instrument of immediate agricultural progress. An improved agriculture will spontaneously demand alterations in land tenure, but an artificial change in land law can only modify the letter of the law and leave the real farming difficulties still waiting to be dealt with, and so it is gradually being realized that while land law may certainly allow or hinder the progress of agriculture in a passive way, yet within wide limits it cannot be used conversely as an active and positive means of forcing on agricultural improvement. While agricultural research, organisation, education and instruction are energetic improvers of farming, land law is more of a passive obstruction which it is our business to see hinders as little as possible. So, from the point of view of the progress of farming, land tenure does not seem so supremely important as several other questions.

Discussions of West Coast land law have nearly always been

upon the basis of the abstract letter of the law and have been singularly barren in practical conclusions because they have had to depend upon analogies from European law, which may, or may not, be true. It is most dangerous to try to put European land law terms on a level with the often rather ill-defined customs of land tenure in a rapidly altering primitive country and so read into the native law all the precision and consequences of highly developed, civilised law. Land law represents an artificially static stage in development at any particular time, and what one really ought to understand is rather the changing, moulding, dynamic force behind it.

This common tendency to regard the land law in the abstract letter rather than in the moulding spirit is the cause of much of the bitterness and even fanaticism that has crept into so many discussions. The number of well authenticated facts about West Coast land tenure is, after all, small, and in the absence of further facts discussions have had to fall back on theory, and the argument then becomes a matter of opinions, views and appeals to convictions. Unfortunately this has almost obscured the important fact that there are two sides to be considered in land tenure, the rights or privileges in holding land, and the services or duties attached to them, and that these two must be properly balanced if there is to be peace. The European on the one hand is rather inclined to overlook the right of the native in the land because he focusses his attention on the duty of the native to cultivate and exploit his fertile land to the uttermost, and he becomes indignant and restless if these magnificent opportunities are wasted. The native, on the other hand, will naturally cling to the right that has always been his without altogether realizing that in the increasing prosperity of his country his duties must increase in proportion as his rights have quite clearly become more valuable. The first view, pushed to its extreme, would deny native rights because they are not properly used according to European ideas, while the second, carried to its extreme, would mean that the natives insist upon clinging to every jot and tittle of the present land law for ever, quite heedless of the fact that conditions are changing and must change like everything else. Both views are mistaken and both must be modified until an equitable balance of rights and duties is struck.

However, what interests us now is how local land law affects, or is affected by, agriculture, and although this is a limited aspect yet it is not by any means a narrow point of view, because the needs of agriculture are so generally insistent and important on the West Coast that they must have been one of the chief factors in shaping the present land law. Moreover, by having chosen one of the alternative methods of agricultural organisation we are more likely to discuss local land law more profitably because we can approach it with the definite aim of seeing how far it satisfies the needs of progressive peasant farming.

There are several peculiarities in West Coast land tenure. It may not seem particularly strange to those who have lived on the West Coast for some years, but it is one of the strangest things to the newcomer to the Coast to see mile after mile of apparently primeval bush or grass, with only a few people to the square mile, and yet to be told that all this land belongs to someone. But one has only to raise the question of the right in any particular case to find out that some native will at once put forward a claim which seems as respectable as any other land right. Every inch of the ground, whether fertile land or barren rock, and every tree and bush is apparently owned. The native theory is that when their tribe first reached the West Coast they found the land unoccupied, so they simply divided up all there was between them without leaving anything over and occupied every inch of the country, just as a gas would expand and completely fill empty space. This theory is actually untenable, because the land was certainly not unoccupied when the tribes that are there at present settled in the country; however, the matter of fact that concerns us is that every inch of land has its owner and there is no such thing as waste, ownerless land.

The second fact that emerges is that it is misleading to speak of land as being owned in the European sense. It is more correct, though still not perfectly accurate, to say that there is no ownership, but rather perpetual trusteeship. The native holds his land in trust, as it were, from the tribe, past, present, and to come, and in practice this trusteeship is vested in the chief, not as a person, but as the head of the tribe. The fact that the land is held in trusteeship and not ownership is clear when it is seen that a West African has not the right to sell

his land, nor can he buy land, and even dispossession by the proper authorities was the rarest possible event. In Ashanti, for instance, Rattray says: "Even when a clansman had committed an offence the king, despotic as he was in many ways, did not dare to seize the offender's land because he would have had opposition from the whole clan". He might only be dispossessed when he had committed some crime which was obviously and flagrantly disloyal to his tribe, in which case his land reverted to the tribe. There is evidence, too, that the continued holding of the land depends also upon its being used, and if the land is left unused it may be made one of the rare occasions on which it may be taken away.[1] There is further evidence of an altruistic trusteeship, rather than a valuable ownership or possession, in the fact that land belonging to a tribe was quite freely and frequently given to West African strangers, who might wish to settle within the tribal boundaries, in exchange for a nominal settlement which will be discussed later. This, one may note in passing, is sometimes called leasing, but it is misleading to give it this name because the implications are not the same as European leasing.

When one studies the land tenure systems of different tribes on the West Coast it seems at first that one has every conceivable variation in land law, yet on closer study it is possible to sort them out into groups which seem to be stages in an evolution. The tribes which are most primitive have systems that are clearly communal, although even in these there are indications of individuality. The next stage is reached in more developed tribes where the land is no longer communally held, but distributed amongst groups of people representing families, and one might conveniently refer to this as family land. While in the most highly organised and civilised tribes land tenure has been developed even further, so that one has individuals having trusteeship rights in land in perpetuity. It is not commonly appreciated that individual tenure in land on the West Coast does actually exist, is quite firmly established, and cannot be withdrawn except for the most serious crime against the state. As early as 1894 Sir A. B. Ellis remarked "that land and not

[1] It is difficult to cite definite evidence in support of this, but there seems little doubt that it was the case, except perhaps in towns, but it seems generally to be implied.

merely its usufruct, can be individually owned is beginning to appear", and this has since been amply confirmed. So one can recognise an evolution of local land tenure beginning with communal land (in which even then there were signs of individual ownership in minor matters) continuing to groups of people as family land, and culminating in individual rights, all throughout being presumed as in perpetuity.

It is important to realize that the holding of land carried with it certain duties or services. Every native who had any rights in tribal land was solemnly bound to be an active member of the tribe and to protect it with his life should he be called upon to do so when the tribe was in danger. The stranger native who might be given land within the tribal boundary was also required to make a nominal settlement with the head of the tribe, usually annually, and this nominal payment was an outward and visible sign that the stranger acknowledged the leadership of the chief and identified himself with the tribe and the promise that he would fight in its service if necessary. When inter-tribal warfare was frequent these services were very real, involving even the very life of the native, and they must have been often called upon, but nowadays when there is peace the value of these services has diminished so far that it has nearly disappeared, and consequently these services have been almost entirely overlooked in discussions upon land tenure. Modern changes in the circumstances of the natives have greatly lessened the duties or services which formerly were required in return for the privilege of holding land. The balance of rights and duties has been obviously disturbed.

So much of the land law of the West Coast is common, firmly established, and well authenticated. They are "general laws, to be observed rather in the spirit than in the letter", as Johnson wisely points out in the case of Yoruba land, and in the present state of ignorance of the details of land holding and of their variation from place to place it is unfortunately doubtful whether it is safe or profitable for the present purpose to go much further along these lines. A closer study would certainly be full of legal interest and, even with the present uncertain evidence, might bring out distinctions which are technically important to lawyers, yet scarcely affect agricultural practice at all, as, for example, the relative merits of freehold ownership

and State tenancy in Denmark, which are legally very different, but hardly distinguishable in their agricultural effects. This is a suitable place to pause for a moment and consider how far these principles in the holding of land agree with the necessities of farming development.

The very first necessity for any good type of agriculture is security in holding land for a considerable number of years, and we shall not adequately realize why this is until we can grasp the ideas of farmers about the land as distinct from the ideas of investors or housebuilders. To the farmer, land is essentially something to be cultivated, treated well and lovingly and eventually improved, and not merely as a piece of the earth's surface, or as something to be carried away or mined. It is the present and future usufruct that is more important to the farmer than the actual land itself, and when this has been thoroughly understood one can appreciate Arthur Young's epigram :

"Give a man the secure possession of a bleak rock and he will turn it into a garden : give him a nine years' lease of a garden and he will convert it into a desert."

The West African has a peculiarly wonderful conception of land which should rouse the admiration of all good farmers. He has an extraordinary attachment to his land : he worships it not only religiously, but also patriotically in the truest sense as the home of his ancestors and of his heirs ; then he regards it as something to be used, and something to be taken away if not used, and finally he regards it, not selfishly for his own use only in his lifetime, but as something entrusted to him by his ancestors and as something to be passed on unimpaired or improved to his children's children for ever. His idea of security is not only for a sufficiently long period for agricultural purposes, but in theory for ever, so that the first necessity for agricultural development is amply met.

The second requirement for progressive agriculture is some form of individual holding in land. As human nature is, it seems that a man must have a monopoly in the holding of land if he is to make the best use of it. All the old systems of communal land, communal farming, or even the old system of the arable mark have gradually broken down. They have uni-

versally been found to be an intolerable hindrance to improved farming by shutting out all initiative, and farming is such a complicated business that it is still impossible to farm by committees or partnerships or co-operatively, except in exceedingly rare instances. One cannot refrain from quoting again from Arthur Young, one of the very greatest of the English agriculturalists who had the advantage of having thoroughly studied both British and Continental farming at first hand :

"Between the town and that place (Rosendal near Dunkirk) are a great number of neat little houses, each with its garden and one or two fields enclosed, of most wretched blown dune sand, naturally as white as snow, but improved by industry. The magic of property turned sand into gold."

We have seen already that the natural trend of local land law development has been along the line of increasing monopoly and has in fact culminated in well-defined individual tenure over very large areas occupied by the more highly developed tribes. The second necessity for good farming has not yet been completely fulfilled everywhere, but local law is moving towards it surely and not altogether slowly.

One is often tempted to stop here and enquire no further. One might say that the holding of land on the West Coast puts no bar in the way of progressive agriculture ; security is granted and individuality is granted, cannot we therefore leave the matter to the natives themselves to work their land properly or to treat it ill just as they choose ? There is still, unfortunately, a school of thought which would like to leave the West Africans alone in what they imagine to be a sort of Arcady cut off from the furious commercialism of the rest of the world. There is no need to enter into any argument as to whether this is the right or the wrong view for we should do well to realise that as a matter of fact such backwaters cannot possibly exist indefinitely. It is not simply a question of one nation choosing to leave the West Africans to themselves or to have commercial relations with them, but it is a case of the whole civilised world wishing to have these territories developed ; the whole of the civilised world and not simply the civilisation of one nation must inevitably be drawn into it. Civilised people demand from these tropical farm lands the raw products which are now

necessities, sugar, cocoa, palm oil and so on ; and we need not imagine that it is simply a one-sided, greedy demand on the part of civilisation, for the West Africans themselves already demand from the civilised nations education, public health, roads and railways, and they will increasingly seek the means of enlightenment, bodily health and increased physical comfort.

This ultra-theoretical school of thought can only flourish when people look solely at the rights in holding land without considering the duties. Both the conventional conception of equity, that where there is a right there shall also be a duty, and also native principles of land holding, agree in recognising that there are duties to balance the rights in holding land. In the old native community the right of holding land carried with it the duty of defending the tribe in case of war or invasion. At present these duties have almost entirely lapsed because settled peace has been given to the tribes by the advent of the European. The West Africans nowadays are not called upon, and will not generally be called upon, to defend their land with their lives, though we must never forget the many thousands who actually did render their services and risk their lives of their own free will during the war. In most districts on the Coast the natives do actually make payment in cash for the benefits of peace by means of a very low capital tax, but this does not take the place of the old land service because it does not distinguish between those who hold land and those who do not.

The old duties in return for holding land were fixed and rigid. There was no grading of these duties ; it was simply that a man should give his loyalty and, if need be his life, or that he should not give it. This was perhaps suitable enough under primitive conditions because there was no great difference in the value of the rights between one landholder and another, and there was no difference in the value of the services they could render. But this is no longer the case. The value of the rights of a native in holding land varies enormously nowadays, even in the course of a few miles. One man may own land in bush country which is capable of raising very valuable crops of cocoa, while another man of the same tribe only twenty miles away may have land in orchard bush which is capable of growing very little, even in the way of unremunera-

tive food crops. In fact, in recent years great differences have been created in the value of land rights, and there should in fairness be a corresponding difference in the land duties, so that rights and duties may be evenly balanced. Besides, just as an efficient agriculture demands certain essentials in land rights, such as security and individuality, so also the land duties may be so disposed as to favour the progress of agriculture. This problem is not new and it leads us towards the economic doctrine of land.

This theory regards the extraordinary changes in the value of land that may occur, often quite suddenly: it postulates that this increase in the value of land, apart from agricultural improvement, has not been the result of any exertion on the part of the owner, but has been due to the action of the public in providing a better market, either by mere increase in numbers, or by a new railway running conveniently near the land, or a new road or other amenity. It therefore concludes that any increase in the value of the land, apart from its agricultural improvement (which is due to the energy of the owner) should accrue, not to the owner, but to the community which has been the cause of increasing its value; the theory then proposes to try to regulate matters so that all are treated fairly by taxing land according to this value, and to hand over the money to the community, to whom it presumably rightly belongs, for mutual public services. To take the example that has been mentioned before: one member of a tribe holds land in bush country which has a rich soil and good climate: another a few miles away holds land in open country with a less kind climate: a few years ago these lands were about equal in value when farming for subsistence was all that was possible, but now one produces rich harvests of cocoa which can be taken away by a convenient road and railway to a European market, while the other is only able to grow foodstuffs and remains practically as poor as it was before. The economic doctrine of land would attempt to regulate matters to some extent by putting a heavy tax on the holder of the valuable cocoa land and putting a very light tax on the holder of the poor subsistence land. In this way the man who is by chance the fortunate owner of naturally rich land would pay the community some of his very large profits, which he could well afford to do, while the man who is un-

fortunate enough to hold only poor land, which cannot raise much, would be called upon for very little.

As a theory, and so far as agricultural land at least is concerned, it seems so fair and sound that it can scarcely be disputed It has been recommended for application in Africa from an administration point of view by Lord (then Sir Frederick) Lugard, and by Dr. Martin Leake on specifically agricultural grounds. If it were carried out, it seems that it would so adjust the duties attached to land holding that it would discourage the progress of agriculture to the least possible extent, unlike such rough methods as the head tax, which is relatively a very heavy tax in some areas and a very light tax in others ; and, since the money to pay taxes in practically all cases ultimately comes from the land, it means that the poor farmer, through no fault of his own, is further penalized, while the fortuitously rich farmer is allowed to retain almost all his relatively enormous profits which, moreover, he has not yet learned to employ in improving his land or in some other remunerative way. But the economic doctrine ensures that a man should pay a duty or service which is commensurate with the value of the right of holding, that is with what the land would reasonably yield when it is properly cultivated.

This seems the fairest way of translating the old land service into a graded duty to suit the new situation of graded land values, with the least possible hindrance to uniform agricultural development. The money would, of course, be used for increased local public services which would largely be for the benefit of agriculture. It does not appear to offend against any of the great principles of native land law, but rather it seems to be the logical result of applying them to modern conditions. The West Africans acknowledge a duty in holding land, which duty belongs to the community whenever it is needed : they recognize that land rights should be fairly and evenly distributed and they would certainly have said the same of duties had they been faced with the question : finally they looked always at land from the point of view of the farmer's usufruct and not the owner's possession.

There is at least one point that deserves mention in the application of this developed principle on the West Coast. Lord Lugard has pointed out that if a West African is asked to pay

a tax upon land he must assume, according to his pre-conceived ideas, that the land belongs *ipso facto* to the person to whom he pays the tax. If a government claims a tax on land, then the native argues that the land must belong to the government, a fact or an insinuation which he most vigorously denies with all his heart and he will therefore not agree to pay such a tax. This would be a most unfortunate misconception, for such an insinuation is not intended, any more than in Europe the paying of an income tax means that the origin of a man's income belongs to the government, but one ought, nevertheless, to treat such a deeply rooted idea with care, even if it is based upon a misunderstanding. There is absolutely no need, nor even desirability, to call such a tax a land tax, because it is not the land itself but the value of the potential usufruct that is the basis of assessment. Lord Lugard therefore suggests that the tax should be called an income tax: that would in fact be a more accurate description and one that would not cause offence.

As for the application of such a tax, it should, like everything else, be gradual. There is no need to imagine that a fully detailed system of assessment of income tax is a first essential. All that is wanted is that taxes should be gradually adjusted, district by district, so as gradually to come to be assessed upon the basis of the potential usufruct of the particular land. The rate must naturally depend on the circumstances, but in certain areas, notably cocoa districts, it seems that it could well be relatively high, since there are large profits, which are at present mostly wasted in ephemeral luxuries and not laid out in the improved land or farming that will be demanded before long. Until the West Africans have at least begun to learn to use their money wisely some of it could be much more usefully employed in education, or in works of sanitation or communication. But it is essential that taxation upon such a basis should be introduced with the extremist caution, and gradually, at a rate corresponding to the general progress of each district. It is perfectly clear from the recent enquiries into the disorders in the Aba district of Nigeria that a detailed counting of men, women, livestock, palm trees, and even in some cases the measuring of farms, gave rise to serious misunderstanding in the minds of the more backward peoples in the south-eastern

provinces of Nigeria, and culminated in serious concerted disorders over a large area. Too great a step was taken precipitately. It is not practicable to put taxation upon an exact basis of income, or to bring it into line with the economic doctrine of land so suddenly, or to make perfectly certain that assessment is scrupulously exact in all individual cases. In any case there is no imperative need for exactness and speed under present conditions, and it is better to work towards exactness step by step with the greatest caution, even if it takes very many years. Taxation on the basis of the economic value of land should be the ultimate aim, not the immediate practice.

This, then, rounds off the survey of the guiding principles behind the land law. Land rights would give the security and individuality in holding land which are necessary to agriculture, and an income tax based upon the potential usufruct would balance these rights evenly with a duty varying according to the value of the right, so falling fairly upon all according to their opportunity and only becoming burdensome when the land is poorly farmed or left uncultivated. Ample security of tenure already exists, individuality exists also over wide areas and seems to be gradually and naturally being attained everywhere, while the income tax based upon the potential usufruct value seems only to be the logical development of native principle by fashioning the "services" of the old subsistence farming into something more suitable to present and future farming for profit. They do not seem to offend native ideas in the slightest and they meet the requirements of progressive agriculture excellently.

But while the main principles seem clear enough, one need not suppose that their detailed practice will be so simple. Although West Coast land law is known fairly well in its main features, impersonally as it were, yet very little indeed is known about the smaller personal details and characteristics that will help to solve all the difficulties that arise in actual practice. A host of questions occur at once. One wants to know what is the average holding in particular instances and areas and exactly how much land a man holds at present and how much of it is cultivated. One ought to know why it is that in certain tribes some people have no holdings and under what conditions they might be allowed to be given land. Then there is the

important question of heredity in land rights, and whether this is tending towards an excessive subdivision of land that will ultimately result in minute uneconomic holdings, as it has done in India, or at the other extreme be so restricted as to result in a landless class, which is a much more common experience. Besides these questions there are the larger problems, such as the advisability of allowing, in certain extreme cases, the buying and selling of land which is at present totally foreign to native ideas, but may need serious consideration because the perpetual holding of land may be as embarrassing as an entailed estate. Then there are many questions further in the future as to what is to be done in cases where one tribe may have holdings based upon a population of three hundred to the square mile and another a few miles away based upon fifty to the square mile at present forest land but to-morrow perhaps growing valuable export crops. To settle all these things a complete land survey and registration is, of course, ultimately needed, but this would clearly be a stupendous task that would take very many years to finish. However, there is no need to wait until the results are completed, for even limited surveys would be valuable as a guide, and in some parts of the West Coast, at least, a combination of aerial survey and landmarks on the ground might be used to shorten the work.

Upon all these questions that will call for an answer it is not possible to reach a conclusion, because there is so very little evidence available. Even the thorough investigation of land law will not be enough ; in certain respects there is little doubt that it will be found to be very deficient, as was the case in India, because modern problems have never arisen before: in other cases one will most probably be giving unnatural precision and importance to the temporary and hitherto unwritten letter of the law and endangering the guiding spirit. What is wanted is a much wider series of studies which include the main economic facts as well as the social facts in a few carefully chosen areas, comparable with such studies as have been carried out in India. This is the really urgent part of West Coast land law.

It is urgent and pressing because until some such knowledge is available it is not possible to come to a conclusion, and meanwhile the land law does not wait upon events but is being

modified and slowly altered day by day in ways which seem neither to follow the spirit of native law, nor to have in them a lasting soundness, but are rather expedients, tolerable at the moment, but ultimately causing more trouble than they obviate. It is idle, and foolishly fanatical, to resist any modification whatsoever in West Coast land law, and those who do so take up a false position and do their country a disservice, for indeed it is already being spontaneously modified by the West Africans themselves, though the results may not be very obvious yet. It is well to realise this and set one's heart and mind rather upon ensuring that the modifications that will inevitably come shall be sound and good. And until it is possible to reach some conclusion on these questions it seems best to preserve the old system as far as possible, even though the old laws will seem increasingly unsuitable, and meanwhile keep careful records of what land changes are actually going on, for the West Coast is developing very rapidly.

CHAPTER IX

FOSTERING PROGRESS AMONG SMALL GROWERS; MODEL FARMS, EXTENSION WORK AND PROPAGANDA

EVERY country is naturally anxious that its agriculture shall be as up to date and efficient as it can be, but the progress of agriculture becomes a very special care in those countries whose farmers are peasants because they may be expected to have less money to apply towards improvements as well as a lower standard of education which hinders them both in desiring progress and in acquiring knowledge. Indeed, the fear that peasant agriculture will always become unprogressive and inefficient is the main reason why peasant agriculture is so often regarded with misgiving on the West Coast.

One must indeed grant this from the point of view of theory, but at the same time one is bound to point out that experience shows that this is by no means always the case in actual practice. The large farmers of Australia are not more progressive than the small farmers of New Zealand, and he would be a bold man who would say that the large farmer of England is more progressive than the smallholder of Holland or the peasant of Denmark. But in the tropics the anxiety for a progressive peasantry becomes much greater, since on the one hand one has a highly educated European estate manager keeping abreast of modern improvements and able and willing to apply them, and on the other hand a poor, ignorant and conservative native. Yet even here the decisive victory is not always with the estate manager, as we have seen, and as a case in point the West African built up cocoa cultivation while the West Indian estates existed. This was mostly because there was a lower standard of living on the West Coast and there were consequently lower costs of production: but one wishes the West African standard of living to rise higher than it is at present, and this means that agriculture must not only be as relatively efficient as it is now,

but absolutely as efficient as other countries on a basis of a reasonable standard of living.

It is already an established fact that tropical peasantry, in some cases, actually farms well enough to compete successfully with European-managed plantations, and it is becoming increasingly unsafe to prophesy that a fully efficient and competitive peasant agriculture is a practical impossibility in the future. For remember that while the tropical plantation has been under the skilled scientific direction of Europeans for at least four hundred years, peasant farming in the tropics has had practically no direct help or advice from white men until the last fifty, thirty, or even twenty years. In fact it would be true to say that native peasant agriculture usually presented itself to administrators as a purely passive notion which meant in practice that the existing agriculture was not to be interfered with in any way, but just left to itself. Certainly until the last few years it was nobody's special business to help the native peasant, and especially the African small grower, to farm better: local governments were fully occupied in maintaining law and order and providing public facilities; traders were as naturally concerned in organising the buying of produce that was already being grown, and while the missionaries had the interests of the natives greatly at heart, they often lacked the special knowledge necessary to help native farming, or else they felt that this lay outside their proper sphere of work. Native farming used to mean unaided farming.

However, in this present age of human development of the West Coast this passive way of looking at peasant agriculture is passing away. Governments of native farming countries now realize that they will not only have to be responsible for administration and adequate public works, but also for help in such matters as public health and education, and that they must come down even closer to the small grower working on his land and actively help in the development of native agriculture in a much more positive way. Official agricultural work began on the West Coast about thirty years ago. At first the staffs of Agricultural Departments were, in the nature of things, ludicrously inadequate: a great deal of time was taken up in the agricultural exploration of the West Coast, and time was wasted on attempts to force on what were really unsound

schemes of development in the hope of quick returns. The Great War naturally held up progress, and it was not until some years later that the Departments were able to set themselves steadily to the tasks of enquiry and experimentation, upon which all sound progress must be based.

It is easy to realize that agricultural research and experimentation were exceptionally difficult on the West Coast. So many fundamentals were unknown and had to be learnt, so unusual were the native practices and apparent aims, so isolated were the various experts in different branches, separated from their colleagues at home and in other tropical countries in spite of all that scientific literature and very occasional personal contact could do. It was difficult to set research into directions where it might conceivably have application, and it was natural to feel despondent, at times, as to whether the results ever would, or could be, applied by the primitive peasant farmers.

Considering all these difficulties the Agricultural Departments have done well, and one need have no fear that they will continue research, experimentation and all the usual advisory and regulatory functions of government agricultural departments. As a result of experience in these native peasant farming countries, they will particularly attend to selection and breeding, and it will no doubt increasingly be their business to see to the propagation and distribution of seed of new varieties of annual plants. A beginning has been made with cotton varieties in Southern Nigeria, and one may expect this to be increasingly undertaken in the future with cereal and other crops in order to ensure purity, uniformity and freedom from disease in the native's crops. Then they will also see to the inspection and grading of produce for export, so as to ensure that quality is maintained or improved, and be obliged to perform many other functions which are usually dealt with spontaneously by private enterprise in plantation countries. We need not particularise further. We may rest reasonably assured that this part of the agricultural programme will be well carried out because it is under the direct control of the government.

We must rather direct attention now to the other part of the agricultural programme—the problem of how to bring about improved practices on the part of the native farmer himself.

It is already realized that this is a peculiar problem: for instance, in plantation countries it seemed to be sufficient to publish semi-technical pamphlets and bulletins to describe agricultural improvements, and so bring about their adoption, but in tropical peasant countries these have proved virtually useless. Here and there in Africa experience is being gained very slowly and unsystematically, but in parts of India, and especially in the Southern States of America, the real nature and size of this problem seems to have been distinctly perceived and fully grasped. For the fostering of peasant agriculture by governments in Africa is not only a comparatively new line of work, but it is also clearly a very important one, since it must affect enormous numbers of people and huge tracts of territory. The exact technique to be used in the progress of agriculture among peasants in the tropics is clearly a huge agricultural problem of a new order and it ought to be treated by itself; it is an important aspect of agricultural propaganda that is not yet fully appreciated.

The problem of the promotion of improved agricultural practice naturally divides itself into three parts. There is firstly the practicability of what is taught, secondly the means and methods adopted in teaching it, and thirdly the willingness to learn and put into practice. The discovery of practicable improvements in agriculture concerns the scientific aspect, but these improvements will not pass into practice until they are not only scientifically, but also economically, sound, and even socially commendable. This applies with peculiar emphasis to the case of peasants whose economic means are less, and social restrictions usually greater, than in the case of large farmers. There is too marked a tendency for agricultural experts to be satisfied with improvements that are only just practicable even for a good farmer instead of pushing on further to an undeniably practical result. There is a very happy example of this in a refinement of agricultural practice in India. There was a disease there which attacked the millet crop and caused a considerable amount of damage. The scientists worked out a simple method of preventing this disease by treating the seed grain with a solution of copper sulphate, and matters were so well organised that there was a considerable demand among the peasants for one anna packets to dress their grain. But although

this process was both simple, cheap and efficient, it had the disadvantage of being a little inconvenient to carry out in the peasant household, and the scientific experts did not rest content at this stage. They have now developed a method of using sulphur powder, which is easily bought anywhere and most convenient to use, so that there is no hindrance, either economic or social, to its general adoption. Thus scientific research in peasant countries should be pursued even further than usual until the results are undeniably practicable. One has already made some strides along the road of agricultural improvement if one can simplify what is advised, but, of course, it has its limits.

Then one must try to improve matters at the other end, for it is obvious that even the most practicable improvements will not pass over into practice if the mass of the small growers are mentally deaf, unwilling to learn, or too apathetic to translate what they are told or shown into action. This mostly concerns the early education which we have discussed previously, but, if the farmer has been enlivened enough to take an interest in his surroundings and is able to appreciate the elements of biology, there seems little doubt that he cannot fail to make an eager audience and an active farmer.

There remains to be discussed the most important central part of the problem of promoting agricultural progress, the means and methods that are to be adopted in teaching, or making known, new improvements. There are very many ways of presenting improved practices to farmers, but with peasants the guiding principle should be to bring them into closer contact with realities and personalities than in the case of large farmers, because they are simpler and more practically minded men. The estate manager is able to apply the improvements that he finds described in a technical paper or journal, but the peasant needs a closer and more personal contact to enable him to grasp the merits of new methods. To begin with, it is clear that this kind of work would be made vastly easier if some sort of agricultural organisation were in existence to group the peasants together instead of being simply a great multitude of isolated individuals, for it is surely impossible to teach millions of farmers individually, but to teach one-fiftieth or one-hundredth of these numbers in groups at once begins to be practicable.

Groups might be formed by all the farmers in a village, or by the farmers' associations which have sprung up in many districts, partly spontaneously and partly with European help, but these are apt to be rather loose and ephemeral societies. An altogether better kind of grouping would be obtained by co-operative societies, whose members would have much in common and be bound together by the closer ties of economic interest.

The simplest and most direct method of teaching improved agriculture is to show it actually going on upon a model farm, but unfortunately there is great confusion of thought on this point, with the result that in nine cases out of ten a so-called model farm is nothing of the sort. In Europe, and more especially in England, the farmer has, with a good deal of justification, come to look upon the model farm merely as an expensive hobby or fad which is practically no help whatever to him in his work. In the case of a dairy farm, for instance, the land and the stock will be supurb and incredibly expensive, the buildings and equipment amazingly perfect and rich and the labour highly skilled and well paid. The farmer is quite ready to admit that the products of the model dairy are also as near perfection as one can imagine, but he well knows that they do not fetch enough in the market to balance the huge overhead charges, and he realizes quite well that if he were rash enough to take such a farm as his model he would soon be bankrupt. As a result the practical farmer is not vitally interested and does not trouble his head any more, while the owner of the model farm is too engrossed in his work to bother to explain what he is really trying to do. The fact is, of course, that they have diametrically opposed ideas as to what a model farm is. If both were mentally honest the owner of the model farm would say to the farmer, "Come as a fellow agriculturalist and I will show you a perfect model of agricultural art developed regardless of expense", but the sort of invitation the farmer wanted to receive was, "Come as an agriculturalist working for a living and I will show you a working model of economic farming that it will pay you to copy". There has been a complete misunderstanding between the aims of the pure agricultural artist and the applied artist, the artisan, or practising economic farmer.

In the tropics the confusion of thought about model plantations results also from other causes, usually unconscious, but sometimes with a shade of self-deception in the intention. Let us say that a thousand-acre plantation of cocoa is laid down: it is not laid down primarily with a view to serving as a model, but with a view to economic success; yet after a time, if it is a good plantation, it will be shown to farmers as a model plantation that they can copy. The fact of the matter, and one should not deceive oneself about it, is that such a plantation is not very likely to be a model of anything, unless it happens to be very efficient, and then it may be taken as a model for a cocoa plantation of about a thousand acres. Systems of farming on a very large and a very small scale must necessarily be very different if they are to be efficient, and so most of the methods and organisation that work well on a thousand acres will almost certainly be ludicrously out of place on an acre farm. This point needs emphasizing because a frequent argument in favour of large plantations is that they will become centres from which enlightened agricultural practices will radiate, but in fact it is not likely to be the case, and probably the plantation labourers will learn no more improvements on their own farming than a waiter in a restaurant will learn about improving his own housekeeping. It is true that there may be a few points in common between the large and small farm, and these few points might be demonstrated separately, and to this very limited extent the plantation might serve as a model; but then it is asking too much of a peasant to abstract these points clearly in his imagination and neglect the others, and it would only result in confusing him. The model farm should be about the same size as the farms for which it is meant to be an example and not a hundred or a thousand times larger.

There is again a general tendency to confuse model farms too much with experimental farms; this originates in a natural desire to kill two birds with one stone, with the usual result that neither bird is successfully dispatched. Where an experiment is very simple and straightforward the experimental farm can be used quite well to show this isolated demonstration, but when it is desired to show the complete proper cultivation of a crop it is just this normal type of improved cultivation that is missing, and if it were present on such a farm there is no

justification for it taking space on an experiment station. It is better to separate the model farm from the experiments, for there is no reason why one should ask a native to disentangle what is being tested from what is now known to be good: it makes matters needlessly complicated for the farmers who see it.

If the model farm is to have a good chance of acting as a working model it should show the best agricultural practice scientifically and economically, should be of a similar size to native farms and should not be complicated by experiments. Judged in this way it is quite likely that one will be aghast to find that there may not be a great deal new that one can show West Africans after all. But it is the acid test, and if an improvement satisfies all these considerations one has the pleasure of knowing that it is a real improvement of local agriculture rather than just an academic result, and that it has at least a good chance of being taken up in local practice.

The planning and establishment of model farms that stand a reasonable chance of being taken as real working models by natives is therefore a very critical matter: the proper running of these farms after they have been planned, perhaps in isolated areas with very little supervision, is also difficult, for the model farm can demonstrate a bad practice quite as easily as a good one. But it is well worth trying to approach perfection in these directions, because then the model farm is so much more likely to fulfil its proper function of permanently advertising agricultural improvements by their own obvious merits, which is the best possible way of furthering agricultural progress.

Another method of agricultural propaganda that has the same reality and directness as the model farm in a narrower, though clearer and stronger manner, is the demonstration of single improvements individually. This can be often shown more effectively on experimental plots than on model farms because one is dealing only with one thing at a time and can show the old and the new practices side by side. Travelling demonstrations and lectures are sometimes possible, providing one can reach the right kind of audience, though their usefulness will depend largely upon whether the demonstration is carried out under a realistic natural setting and whether the demonstrator is known and respected in the district. Lectures,

exhibitions, shows, and especially cinematograph films all offer great opportunities which ought not to be missed, and for all these personal ways of furthering agriculture one will need specially trained and selected natives, for very few Europeans indeed will ever be able or know how to reach and impress the native farmer as well as one of their own people.

There are a variety of impersonal ways of furthering agricultural progress, but for many years they must remain of little value because of illiteracy. In the more advanced areas of the Gold Coast a series of posters which relied mostly upon cleverly arranged drawings with a minimum of text attracted notice and were of some service. There is great scope for imagination and ingenuity in writing pamphlets or popular press articles so that they will appeal to native readers, but for the next few years printed matter is much more likely to reach clerks than farmers, and when the information does reach the farmer the account will be at second hand and most probably garbled, so that such methods may lead to more trouble than improvement.

The whole problem of bridging the chasm between the experimental field and the local farm needs the most careful study, particularly from a British point of view. There is far too great a gap in time between the discovery of an improvement and its general adoption in local practice. In several Continental countries, it is said that an agricultural improvement of an average order usually becomes widely practised by the peasants four or five years after its discovery, whereas in England it would take at least twice or three times as long among larger farmers on a higher standard of living. Part of this very satisfactory state of affairs is due to the more practical, though not necessarily less scientific, orientation of the agricultural scientists, and another part is due to the receptiveness of the farmers, but a very large part is owing to the methods and organisation that are being used to demonstrate and make known the latest practical improvements. This kind of advertisement, or agricultural propaganda, as one might call it, demands earnest attention, more especially in countries where the farming unit is small and the farmers are many.

British agricultural scientists have been responsible for a very high proportion of agricultural improvements, and one need have little anxiety that they will continue to produce work

[*By Courtesy of the Egyptian Ministry of Agriculture.*

AN EXAMPLE OF AGRICULTURAL PROPAGANDA FROM EGYPT.

This poster is brightly coloured to attract attention, the text being short and simple. It shows how to disinfect barley seed with sulphur to prevent disease in the field and insect attack while in store. The best way of mixing is shown in the five upper pictures for the small farmer, and in the four lower pictures for the better equipped large farmer. (Text and pictures are read from right to left).

which will be of the greatest practical value, but unless these results can be carried off the experiment station and quickly transplanted on to the ordinary farms throughout the country all this good work, patiently, intelligently and expensively won, loses most of its value. Agricultural propaganda is so frequently the weakest link in the chain of agricultural progress: it is distressing to find it treated in an off-hand manner or left to take care of itself and never really studied and carried through as it ought to be. Past experience likewise shows how slow British farmers have been to take advantage of new improvements, and one may well be anxious for the West Coast in the future unless this matter is altered at home, where the agricultural experts are trained. In a few cases in England there are signs that this attitude is being changed, but unfortunately one must confess that they are still exceptional.

On the West Coast it is obvious that agricultural propaganda is quite peculiarly important, for if this link between the findings of scientific research and general farming practice is weak or missing there is little hope of a progressive and prosperous agriculture among these primitive farmers of different race and outlook. Agricultural propaganda is important on the Coast because it seems so urgently needed and because its technique will have to be of a special type adapted to the mentality of the West African. In particular, as a beginning, it would be well worth while to make a careful study of the many methods of agricultural propaganda that have led to such remarkable practical results in the Southern States of America among small negro farmers of West African ancestry.

CHAPTER X

A RECITAL; AND SOME WIDER CONSIDERATIONS

THE forming of groups among the vast number of individual peasants for the benefit of mutual business, leading ultimately to a natural organisation of agriculture, a teaching and training in schools which have regard to the needs and development of a farming community, the urgent necessity of wide local knowledge to apply to land tenure problems, and the fostering of the progress of agriculture by specially adapted means of propaganda seem the chief peculiar factors in the future development of West Coast agriculture by peasants. There are many other matters, such for example as rural industries, that assume special importance under these circumstances, but they must be left aside now. Before ending these studies it will be convenient to recite briefly the main features of West Coast agriculture as they stand in relation to each other.

The outstanding characteristic of the West Coast ever since it has been known to the civilised world has been religion. The West Africans' religion is of a deeply permeating emotional kind which leads to strong and often seemingly cruel action in following out its tenets, unlike the softer intellectualism of ancient Greece or the helpless passivity of the East. They recognize an awe-inspiring Supreme Being and their second common belief is in a loving, co-operating Earth Mother, with specific fertility cults, who is apparently a deification of those forces of growth and increase which we call vitality. This belief seems to be equivalent to our science of biology, more particularly in its applied form of agricultural science, and so one concludes that the West African is a convinced vitalist where civilised man is a mechanist. The points of view of the West African towards agriculture differs greatly from that of a civilised man, and one should regard the force of such formative ideas as having an influence upon agriculture as great as, or

greater than economic facts. The Earth Goddess ought to warn us to take a broad view of West Coast agriculture if it is to be understood.

When one begins to think about agriculture one realises that it is not very easy to decide where its boundaries are. At the very least it must be of the nature of a trinity compounded of a science, an economy and a society, all welded together, and even this is insufficient because these components are not static, but rather dynamic, for each begins simple and becomes complicated, developing and evolving in time. Perhaps we can better compare the nature of agriculture with a musical fugue in which there are three different orderly plans or themes, which are constantly varying and developing independently: each of these themes can be abstracted and studied separately, yet it cannot be fully appreciated by itself and only assumes its fullest truth and beauty when it is so skilfully blended and wedded to the other themes that they all together make one great harmony. One sees the beginning of agriculture in the remarkable invention of cultivating plants, an invention that initiated civilisation and has been its basis ever since. Then almost at once there arose an economy in cultivating plants, and finally there were social considerations because communities rather than individuals were concerned. Each of these three simple elements that composed agriculture began slowly to vary and develop on their own lines, and to interlace, and probably for a long time the primitive agricultures of all countries resembled each other closely. In Europe and in many parts of Asia they produced the "arable mark", and in Africa also something of a similar nature was attained. Perhaps up to this point it was a universal fugue from which all others have developed.

On the West Coast, agriculture probably began with the introduction of shifting cultivation and perhaps simultaneously the introduction of food plants and animals from the East, for the local science seems never at any time to have been advanced enough to domesticate the indigenous plants. Then much later, when the West Coast's frontage on civilisation was reversed by the Portuguese sailing along the coast and trading in slaves and spices, the agricultural flora was again greatly enriched by very many South American plants whose value to the native was immense. The last development is the introduction of valuable

cash crops or the exploitation of indigenous crops for export and the linking up of West Coast agricultural tradition with the universal science.

It is not so easy to trace the economic theme, but glimpses of it can be caught in such matters as the full and quick use of cleared land by intercropping. The early reports of Europeans on economic farming are distinctly unfavourable, and it is clear that the West Africans did not quickly take advantage of the economic opportunities that were then offered to them, either by increasing the production or by improving the quality. These opportunities continued to be neglected until very recently, when export cash crops were introduced and the demand for palm oil became more insistent. Production has since increased greatly, but it has been aided by factors which probably will not continue to operate: virgin agricultural resources which are not being fully regenerated, low costs of production due to a low standard of living which must arise, and monopoly of products, which is no longer the case. Meanwhile the problem of poor quality remains, and although it has recently been improved by produce inspection and regulation, there are clearly close limits to its applicability. The science and economics of the present agriculture are not altogether unsatisfactory, but one may with justice and reason regard the near future of West Coast farming for profit with great anxiety in the light of past experience.

The social theme only emerges distinctly at the end of the slave trade when Europeans ceased merely sailing and trading with the West Coast and began to penetrate and open up West Africa. There began a phase of exploration which brought out the great value of these areas, at first as having fertile soil, but now with more reason looked upon as the world's great natural laboratories. This was followed by a phase of material construction to open up the countries by harbours, railways, roads and other public works, and at last by a phase of human development brought on by the realization that the future of the West Coast must depend mostly on the development of the individual West African.

Social development has been very greatly influenced firstly by Lord Lugard's conception of a reciprocity of help in trade and emancipation, or "dual mandate", and secondly by world-

wide confirmation of this idea of tutelage in the Covenant of the League of Nations. Moreover, the West Coast is very unhealthy for Europeans, who are consequently very expensive to employ and can therefore only be used sparingly, like leaven, and given directive rather than executive duties. In the political field this has been very well achieved by a system of 'indirect' government. From the West Africans' point of view probably the most remarkable social feature is the very deep attachment of the native to his land, any interference with which he deeply resents, and along with this there is a social organisation, whose nearest European equivalent is a moderate democracy, of an intelligent and well-adapted kind, with a system of checks and counter-checks. Finally the Coast is densely populated, judged by African standards, and it is therefore naturally orientated towards a well-manned type of agriculture.

But towering over all these social factors are the difficulties created by the increasingly severe impact of civilisation, which is sweeping like a tide over the West Coast, tending always to dissolve the cement of tribal morality and discipline and crumbling away the stable West African social structure so that ultimately millions of individuals are left loose to be dragged about by any current that flows. The impact itself is inevitable, but its force and suddenness may be buffered so that it may mould rather than shatter, and therefore in dealing with social alterations it is imperative in practice not to allow any sudden social alterations until one can come to an incontrovertible conclusion, but to proceed always along conservative evolutionary lines so as to preserve that structural stability which is at all times essential and which is already strained enough.

At this point one turns away from West Coast farming for a moment to consider the influence of scale in farming because this constantly balks free judgment; it is not generally regarded as an open question, but seems to be unfairly prejudiced by a psychological phobia of small-scale farming which may have been justified years ago, but is so no longer. The scale of farming is mostly decided in practice by the density of population. However, the British have particularly favoured large-scale farming partly because they have not, until recently, had much to do with small-scale farming, and partly because

it has so often fitted in well with conditions in the Dominions. Moreover, in spite of the fact that the landlord originated as a military leader, and was not an agricultural creation intentionally designed to lead agriculture, yet the English landlord did often come in time to perform very useful agricultural services. But the fact is that the English landlord was an exceptionally good type, for in nearly all other countries landlords became oppressive or useless, and have been driven out.

Then a large scale in farming has been advocated more recently by industrialists who try to apply ideas of mass production to farming without fully realizing that it deals with living material which takes time to grow, and that machinery can only be applied indirectly and often not so thoroughly as hand or horse labour. In processing agricultural produce, mass treatment is an undoubted success, but unfortunately the economic unit of production and the economic unit of processing rarely coincide, and can never be made to coincide in the case of all the crops that must be grown on a farm. Finally, taking experience as the test, some deny that small-scale agriculture is either prosperous or progressive: this was true fifty years ago, but it is quite clearly not true to-day. In fact, the position of large- and small-scale farming is much more probably reversed, but there is no need to press the point. Let us be content to regard the question as open.

In the tropics this question is complicated by the altogether different status of the large planter and the small grower. The obvious advantages are all with the large planter, but recent experience has rather damped the earlier optimism: heavy overhead charges, difficulties with labour and other social ills, and a lop-sided development of agriculture all stand out more clearly now. Tropical peasant agriculture is not yet as efficient as the tropical plantation, but it is increasing in importance, and there is certainly no longer any ground for supposing that it is a hopeless failure: on the contrary it has led to quite remarkable agricultural development in several tropical countries.

It is now time to bring all these loose threads together and arrive at an opinion of West Coast agriculture as a whole. Clearly the present agricultural organisation or organism is a

crude kind of peasant, or small growers', farming for food and exportable cash crops and, remembering all the factors that have moulded it, it seems exceptionally stable and unlikely or impossible to change, or be changed, very greatly. Yet it is not at present a very satisfactory argiculture, and as many people have suggested that alternative agricultural organisations seem much more promising, we ought to see what they would involve and whether they are really practicable.

There are two other alternatives, the plantation system and metayage. The metayer system is less important, being almost confined to the Latin countries of Europe, and even here declining, though it is common in the United States, where it may be useful as a rung in the "land tenure ladder". The system is ingenious and appeals strongly in theory because both metayer and tenant seem to have a direct incentive to make the land produce its utmost, but in practice, unfortunately, the interest of metayer and tenant are not always identical, but often distinctly opposed, and it is not easy to harmonise them all, or to arrange the division of profits peacefully and reasonably permanently. Economists are now generally agreed that metayage has the disadvantages of both large and small-scale farming without any of their advantages, and general experience supports this. The plantation system would have to labour under two grave economic disadvantages, the exceptionally high cost of European supervision and the difficulty of an adequate labour supply, in strong contrast to conditions in the Far East: against this there would be the advantage of propinquity to Europe in the case of a tropical fruit trade or other perishable material. But an almost insuperable difficulty would be the enormous social disintegration which such a heavy impact would cause. The plantation system would be a veritable social bombshell. It might act like a powerful agricultural stimulant in certain directions, but it would force on material progress so fast that it would almost certainly send an already strained and weakened social constitution into an uncontrollable breakdown.

In addition to these difficulties, both metayage and the plantation system must affect the existing landholding rights. It is clearly inevitable, and perfectly reasonable from all points of view, that land rights should be gradually modified and

allowed to evolve in response to changing conditions on the West Coast, but these two systems demand much more than this modification. They demand sudden alterations in principle which are most unlikely to be acceptable to West Africans, to say the very least. Moreover, we should not regard this simply as a negative argument of *force majeur*, for there is also the positive argument that one cannot state that native principles do necessarily hinder agriculture; on the contrary, many of the ideas behind native principles show a truer conception of the needs of agriculture than some European principles.

One concludes that both metayage and the plantation system are not practicable, and one must therefore look more closely into the possibilities in peasant or small-growers' agriculture. This alone can be continuous, demanding no sudden changes, but only a gradual modification of what already exists: a natural growth or evolution as against an artificial graft or revolution: a process involving growing pains, no doubt, but not the agony of birth. It means that the fugue of agriculture can be carried on and continuously developed, instead of being cut short and re-written. Peasant agriculture undoubtedly has great obstacles to overcome, but if they sometimes seem insurmountable we shall be heartened by remembering the far greater difficulties along the other two roads to a prosperous agriculture.

The most obvious need of West Coast peasant agriculture is some form of closer combination to weld the small scattered producers together, chiefly so that they can deal in respectable amounts of uniform produce instead of being content to be grateful for whatever scanty attention may at present be paid to their tiny and variable parcels. Combination in peasant farming has been found generally essential for all kinds of purposes and has nearly always taken the form of co-operation. This English invention has been most successfully applied by Teutonic people to agriculture, either for specifically defined purposes, as in Denmark, or for more general purposes, as in the Raiffeisen Societies in Germany. These two refined techniques of agricultural co-operation have spread with very remarkable speed and a high degree of success over many parts of the world during the last twenty or thirty years, dealing

with an immense number of farmers for all sorts of purposes and among many different races and mentalities. In England the development of agricultural co-operation has been feeble, and so Englishmen in general have gravely under-estimated its wider achievements. It is no exaggeration to say that agricultural co-operation has brought about a widespread "silent revolution" in peasant farming, and has altogether altered its status.

In the less-developed parts of the West Coast there seem many opportunities for direct co-operation of the Danish type in treating and marketing produce, but in the more developed areas the demand for credit facilities might necessitate societies of the Raiffeisen type. A few societies should be started experimentally in suitable areas and the method not extended until the most suitable technique emerges. Once economically sound agricultural co-operation has been attained there is hardly any doubt that it will gradually lead to a natural organisation of agriculture by its reverberations. It may be expected to have the social effect of constructive integration and unification in a period when so much disintegration is going on, and in enlivening and making the peasants themselves more progressive, and be of immense help in solving the rural problem.

The second way in which peasant farming could be helped is by a form of early education better adapted to the needs of the pupils. The agriculturalist is chiefly interested in primary rural schools in which possibly half the boys will afterwards become farmers, and educationalists have recently shown themselves ready to listen to suggestions.

It seems quite clear now that whenever schools have helped the progress of agriculture it has not been by means of technical or vocational training, but by a cultural education, simple though it may have been. For children, the best cultural approach to agriculture is by way of the scientific aspect by a simple form of biology, or Nature-Study, and the justification of such teaching is that by replacing traditional knowledge by scientific principles, which can be demonstrated and practised, one is giving free room for thought instead of a stultifying authority, and so leading the children to look at things around them with renewed interest. The recent change in outlook of biologists from fossils and phylogenics to the living plant and

animal has radically affected the older Nature-Study and transformed it into a much more attractive subject which we have called Natural Science, for want of a term to describe scientific teaching with a marked biological bias. The exact content of such a course must be a matter of experience, but it should be as small as possible and reach as far as a general understanding of plant and animal and the simpler facts of hygiene. It should be taught humanistically, and as far as possible directly from natural objects and not from a book, and the principles practically demonstrated whenever possible. The habit of continuous care could be inculcated by the cultivation of school garden plots and even more by the care of livestock. Natural Science makes a spontaneous appeal to the West African child, but the great difficulty in teaching it seems to be the training of the especially good type of teacher needed for this subject. This, one suspects, is more apparent than real because biological knowledge is not so much difficult as rare under present conditions. However, one ought to make good biological knowledge the characteristic of the West African teacher in the future.

In addition to this the agriculturalist might well ask the educationalist for a less rigid interpretation of the planning of rural primary schools. A less intense but more prolonged education seems much better because it would mean less sudden changes in a boy's life, less of a gap between school and farm, to their mutual benefit, and it would tide more fully over the critical period of puberty and make possible the teaching of certain subjects which cannot now be taught at all.

It is often thought that the modification of land laws may also be a positive method of developing agriculture, but it is very doubtful if this result could ever follow, for it is a mistake to regard land laws from a narrowly legal aspect as they are more the total effect produced by the long interaction of forces, rather than in the nature of causes. The agricultural necessity of security of tenure is amply met on the West Coast, and the second necessity of individual tenure has also been attained in many areas, and is probably being naturally attained universally, but the duties which used to balance these land rights have either lapsed altogether or been replaced by a tax which bears no relation to the land right. This is undoubtedly unfair to

the farmer: from the agriculturalist's point of view it is much the best, as well as the fairest, to apply gradually the theory of the economic doctrine of land, basing it at first roughly and then more exactly upon the value of the potential usufruct, but not calling it a land tax (which, indeed, it is not, strictly speaking), because of the danger of native misunderstanding, but rather an income tax.

The really urgent matter in connection with land rights and duties is the collection and critical study of detailed economic and social facts in as many areas as possible, to give guidance in solving the more personal and detailed land problems which must inevitably demand careful treatment more and more insistently in the near future. Without the full evidence there is little chance that the modifications necessary to fit the growth and development of the West Coast will conform to native principles, but will be more likely to be the blind following of hundreds of small and unimportant precedents which were never for a moment intended or designed to be general law.

A problem which assumes very special importance and should justly cause great anxiety in a peasant farming country is how to bridge the present great chasm between the experimental farm and the small growers' farm, for agriculture will never be efficient and progressive until the ordinary farms quickly incorporate the results of scientific research into their standard farming practice. A good deal can be done by pursuing agricultural research still further until it becomes undeniably practicable, and much more by insuring that the peasantry are enlightened enough to be eager for improvement, and so organised that they can be reached, but much depends upon the kind of special methods used to advertise new improvements and nurse the progress of agriculture.

One of the best ways is by means of the model farm, but there is a great deal of confusion of thought in their aim, and this confuses the farmer in his turn. It is not easy to set up model farms that are really working models of economic farming that can be copied, but the ideal is well worth pursuing. Separate demonstrations of improved practices, lectures, exhibitions and especially cinematograph films all offer great opportunities which, however, depend very greatly on the personal factor, but the more impersonal methods such as pamphlets, Press

articles and posters are of little real value because of rural illiteracy. This important problem of agricultural propaganda ought no longer to be neglected, but thoroughly re-examined and actively developed.

The history of West Coast agriculture has now been followed from its simple beginning as an ancient type of subsistence farming until the present day, when it is changing rapidly into an agriculture of small growers who rely increasingly upon cash crops for export; then some specific ways in which this agriculture might be helped to develop have been discussed. At this point these agricultural studies come to an end, but they open up wider considerations which, although not properly agricultural, yet have an important indirect bearing upon agriculture that cannot well be neglected.

One sees that of the possible alternatives in agricultural development small growers' agriculture involves the least interference and sudden changes in native life because it is in the nature of a continued development, instead of a check and a new start. It also follows that European agriculturalists, in carrying out development, would be able to begin at a more advanced stage than if they were to start afresh. They would be able, in fact, to advise and guide an already existing and self-acting system, which may seem meagre and inefficient at first, but has had all the heavy foundational work done already, instead of stopping the development on the old system and then imposing entirely foreign plans which cannot be understood by the natives and so must be closely supervised and directly executed right from the beginning, and in detail. That is to say, that Europeans would have the function of a directive and guiding leaven instead of providing the executive energy, and agricultural experience would then not be applied directly by Europeans to the land, but indirectly by affecting the native.

This has an important bearing upon the general method of government that has been adopted. In West Africa the system of government that is generally in force, and being increasingly used, is known as 'indirect' rule, a method of government largely initiated and perfected by Lord Lugard who, however, prefers the term "local self-government". This means that political officers do not themselves directly administer laws to the individual natives, but they do so indirectly through the

native chiefs, who have their own courts, police, tax agents and so on ; the political officer guides and advises native administration by means of the pre-existing executive officials, and so is used as a leaven of direction and guidance. By adopting this system of indirect rule it has been possible to administer vast numbers of natives scattered over enormous areas with a ridiculously small number of capable political officers, so bringing to them an internal peace and order and a degree of justice and opportunity for progress hitherto unknown and undreamt of. The system has been criticized sometimes, for it is naturally not perfect, but no one has been able to suggest seriously how any other system of government could possibly function at all, given the same material, far less to show that some other system is actually better in its results.

The question as to whether progress is to be directly from European to native, or indirectly through native groups that already exist, or can be built up, is not peculiar to the West Coast, though it is especially important there, but concerns primitive people generally. The relative merits of the two systems cannot be discussed now, but a few salient points of each must be borne in mind in thinking of agricultural or general progress. Direct methods are virtually limited in their effect to those natives who come into direct contact with Europeans, and who are necessarily few in number, and any wider extension of the work among a great number of natives will need a proportional increase in the number of Europeans, which soon becomes financially impossible. Direct methods can lead to very rapid progress which, however, only an infinitessimally small number of natives can keep pace with, still less co-operate with, either materially, intellectually or morally, thus leading to an ever-widening social cleavage ; and progress by direct means depends almost entirely upon large numbers of Europeans, and so comes to a standstill as soon as they are withdrawn, as has happened before. Indirect methods are entirely different ; they are slower, but much wider in their effect, and the great mass of the people progress gradually at an easy pace, instead of a very few very quickly, so that no great social gaps occur.

The problem of how primitive people should be governed bears a most striking resemblance to the difficulties that con-

fronted Moses in the story of the Exodus. In both cases one begins with a people more or less crushed, passive and backward from "anguish of spirit or cruel bondage" by reason of the Egyptian taskmaster or untamed Nature and ignorance; then there is the introduction of a spirit of progress, on the one hand by Moses, a Jew by birth but a complete foreigner by upbringing and ideals, and on the other by civilised man. In both cases the power of the appeal is so great that it cannot long be resisted; the Jews have to set out for the Promised Land, the primitive peoples have to leave the old primeval Africa behind them and find their way towards the new civilised Africa of the future. In both one sees the spectacle of vast hordes of people having, in a greater or less degree, the mentality of enslaved people, passive, weak-spirited, lacking in foresight, suddenly relieved of discipline or lightened of burdens, having to start, on a national scale for national or civilised ideals, a hazardous journey through the wilderness, or having to pass through a critical period of emancipation and adolescence.

The Jews were led out of Egypt by the forceful personality of Moses, who knew their weaknesses. They were faint-hearted when they were pursued, they soon questioned Moses' leadership, they murmured and sighed for the slavery and flesh-pots of Egypt, they continually complained and agitated against him. The strain of administration and execution was rapidly becoming too great for one man to bear, and the climax was reached when Moses had to sit down from morning until evening to judge all the causes of the people in person. Up to this point the method of administration had been direct. Moses was the sole organiser and adminstrator, the leader in marches, the upholder in battle, and even the sole judge and teacher. The people were dependent upon him alone for everything, and he alone bore the blame and had to face the murmuring and the agitation. His position was fast becoming impossible, for the people were almost ready to stone him, and it was clear that such methods would never turn the horde of weak-spirited Jews into an army capable of invading Canaan.

Jethro, another foreigner, saw the mistake that Moses was making and gave him good advice. He told Moses that his method was not good, for it would wear out both him and the people, being too heavy a burden to be borne by one man, and

so he counselled Moses to be the directing spirit of the people, to be to them "to God-ward" and then to teach them laws, ordinances and duties and appoint able rulers from among the people to administer and judge all ordinary matters, so as to lighten the burden of administration and share it among the people. Moses wisely accepted this advice, set up his rulers from among the people and began to govern in an indirect way. He soon gave the people the Ten Commandments and the basic laws of justice, and from this time he becomes more and more a lawgiver and advisor and less and less an executor, gradually building up, in the course of forty years, a self-reliant, organised nation strong enough to conquer Canaan without depending upon his personal leadership.

Like Jethro, we must try to grasp a truer conception of the real nature of the problem of developing primitive countries and peoples than is yet usual. We must cultivate a much better sense of proportion and get out of the habit of judging by standards that consider a country advanced because a few coast towns have electric light and motor 'buses, or a few schools can boast of certificate holders. We should recognise such things in their true proportions as mere excrescences pushed out far in advance of general progress, standing out above the broad plains of native civilisation like scattered steeples which have been set up and kept up by white men, but are likely to crumble and fall down if they should go away. One ought not simply to want progress in these primitive countries: one ought to want a broad-based, well-balanced, self-supporting kind of progress, that can stand as far as possible independently by itself at all stages of building: something that will raise the whole massive breadth of the country steadily and stably: something that may also be less spectacular, less obviously rapid, but less piecemeal than at present. Not a blind rush across the desert with an unfitted horde, likely to be disheartened at every difficulty and conquered at the first serious battle, with a few men trying frantically to keep up with the furious pace of their leaders and the rest scattered and strung out far behind, but a steadier, heavier tramp, a gradual training in discipline, responsibility and self-reliance for many years until they have become an experienced, organised people fit and ready to occupy their new country.

When one looks at the many cases in which backward peoples have been administered by more highly civilised nations one cannot but be struck by the remarkable similarity in the history of all of them. At first there is very rapid development, which gradually slows down as the peoples become adolescent: then internal troubles of one sort or another begin and gradually increase until the country, for a time at least, actually seems to go backward. Lord Lugard, among many others, has truly remarked that of all people the British have been the best in developing primitive peoples, but when these peoples have advanced a little they have not been so successful.

The reason, perhaps, is not so far to seek. Europeans in very small numbers enter a primitive country over which they have taken, or more often been forced to take, control. Because of their small numbers and the minute force placed in their hands they have to proceed with the greatest degree of sympathy and tact in obtaining law and order and inducing the elements of good administration. They have to take both the wide and the long view of administering and developing the whole mass of the native people for decades ahead, and they do actually achieve this by learning to understand the difficulties and then working in sympathy with the native chiefs. They are in fact actually working *with* the natives. But, as time goes on and the country begins to develop, more and more officers are sent out to take over more defined and restricted work. They survey a narrower and narrower field and soon become so preoccupied with carrying out executive details that they have less and less time or inclination for learning the real needs and difficulties, and so understanding and sympathising with the natives. The tragedy is that they begin to lose sight of the wood for the trees and soon find themselves working in a rather distant paternal way *for* the native, and no longer *with* him just at a time when close knowledge and sympathy are especially needed.

As the report of the Special Commission appointed to investigate the recent riots in Southern Nigeria says:

"Twenty years ago an administrative officer would travel on foot from village to village, going in and out among the people and listening to their complaints. He was seldom troubled with a written petition, and he had sufficient time not merely to deal with matters

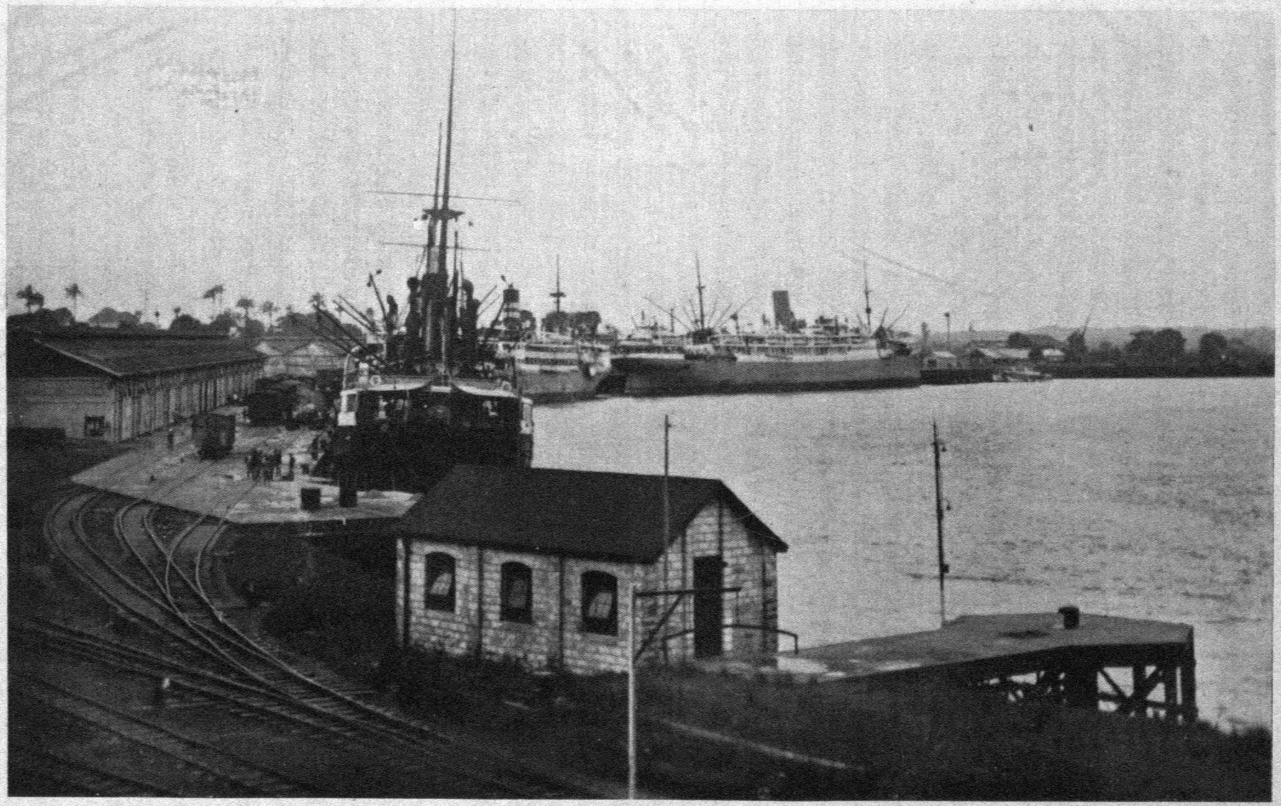


Photo : C.M.S.

A View of Port Harcourt.

This is an example of rapid material progress on the West Coast. The port sprang into existence during the War and is already an active port, coaling station and rail terminus. Takaradi harbour on the Gold Coast is even younger (1929) and larger. Compare with illustration facing *p.* 38.

of pressing importance but to cultivate direct personal contact with the people, getting to understand them, and enabling them to honour and trust him. To-day for the most part he travels by motor-car or motor-cycle . . . because he must economize time if he is to review the numerous cases awaiting him at the Native Courts, deal with the ever-growing number of petitions that daily besiege his office, and perform his other multifarious duties, including probably the patient hearing of difficult cases in the Provincial Court."

The remedy for these ills seems clearly to be a return to the state of affairs as they were earlier, and let the European be an indirect adviser and helper and not an official overloaded with executive work. But it is very little use if one group of officials, the political department, are doing their utmost to build up native institutions, and aim at progress indirectly through the native, while all other departmental officers in the same district are animated increasingly by the exactly opposite aim of directly executing their own work. So in this case, direct agriculture and indirect government are clearly incompatible and will not mix: the fact is that 'indirect' government is not merely a matter concerning the political officers only, but an attitude of mind that ought to be general to all departments as far as is practically possible.

Everyone will be inclined to agree that the main animating principle on which all departments proceed should be ideally the same in essence, but one will naturally ask how this is to be done. Is it at all possible to foster and build up indirectly a telegraph service, or a railway by indirect methods? No, it is clearly quite impossible. These inventions and very many others must obviously be introduced suddenly, with hardly any modification, but this is not to say that the same applies always to all technical departments. An example will make the point clearer.

In building houses or schools the engineering officers will tend to use concrete, a very expensive, though doubtless very good method, totally new and foreign to the country and beyond the means of all but perhaps one in a hundred thousand natives to copy. The missionaries and the early government officials, however, built in mud with a rendering of cement, a very much cheaper method, a development of native building and a method which many natives can, and have actually copied. The first

is excellent from a pure engineer's point of view, but a white elephant as far as the native is concerned. The second is not quite so good to the pure engineer, but it is a triumph of local engineering and it stands to the native as a working model of practicable improvement of housing.

Thus one is constantly having to decide between these two methods of progress, but gradually and increasingly problems are being solved in the technical departments in the direct executive way. It is not that the technical officers decide consciously with some sinister afterthought; on the contrary they are so anxious to perform their special work in the best professional way that they lose sight of the wider issues involved: they have never really caught the spirit of 'indirectness' that has tempered the pure professionalism of the political officer and made their wide practical achievements in the country so startlingly successful. If indirect government is to continue its successful career, it is essential that all departments of government become saturated with their animating principle so that in any extension of their work they always try to proceed by indirect methods whenever it is at all possible, instead of taking the temporarily easier direct course.

And if agriculture, which fills such a large place in West African life, can be developed so largely by the indirect method of co-operative organisation, suitable school teaching, and all forms of demonstration and advice it will aid immeasurably the even, responsible, self-supporting progress that has begun so well in the more purely political field. It will open up immense opportunities for the exercise of African ability and, what is equally important, it will balance these opportunities with definite responsibility to their own people.

One naturally wonders how much of this is likely to be achieved by the West Africans, in spite of the fact that one knows that the estimation of the potentialities of peoples is so exceedingly speculative as to be almost worthless. Julius Cæsar could never have credited the ancient Britons with the possibility of the British Commonwealth of Nations or the early Tudors thought of the decline of the Spanish and Portuguese Empires, and even in our own day we have seen the extraordinary and unexpected development of the Japanese, while we are probably dealing with an even more unknown quantity

in the West African. Then, too, we have to remember that world conditions are probably altering so quickly that we must revise our standards and begin to judge peoples more by peaceful constructive economic potentialities than by more obvious fighting qualities, as we have been used to doing. But one may perhaps usefully notice some outstanding considerations and characteristics in this case.

The ancient West African in the primeval bush seems to have attained only a very low degree of civilisation. We must, however, remember that possibly no human being is in a particularly normal environment when he lives in dense high bush or tropical African forest : we may well be making a great assumption when we presume that he is perfectly adapted to his surroundings, any more than we are entitled to assume that at the other extreme the Esquimaux are perfectly adapted to theirs, for indeed they suffer very severely during the long Arctic nights from "long thinking" or melancholia. The West African was probably driven into the forest, and he may not have been able to master his environment : he was not living in Arcadia or in the Golden Age, as those unused to primitive countries sometimes imagine, but he was living with a relentless savage nature, "red in tooth and claw". The towering vegetation, ever silently growing and overwhelming his huts and his cultivation, shutting him in, must have filled him with a sense of awe and impotence and fear : the forest twilight, the terrific storms and rain, the wild beasts, the many debilitating diseases like malaria, sleeping sickness and worms, and the great heat and dampness must all have tended to crush and enervate rather than to develop, and indeed there is some evidence that this has happened.

When Europeans first came in contact with the West Africans and brought enlightenment from outside one may have expected some improvement. Their influence was, however, confined to the Coast, and they unfortunately regarded the West African chiefly as prey and so put yet another difficulty in the paths of progress. It is only within the last fifty, or even thirty years, that they have been brought into humanistic contact with civilisation. During this period peace and order have been made possible and under the guidance of Europeans they have made startling material progress, almost entirely through their

agriculture. But one can see that they still fall far short of that standard as farmers that the world in general will increasingly demand. Is there anything that exists at present that may help to achieve this in the human material that is there ?

In spite of the diseases which abound the West African has generally an excellent physique, and if he could be rid of preventable diseases such as worms and malaria his bodily strength, and perhaps still more his mental activity, would improve, for these diseases depress mental effort. The West African is notoriously good humoured, even-tempered and perhaps more long-suffering without being crushed than any other man. He greatly prefers peace to war, and love to hate, but he is not abnormally lazy so long as he can see some clear advantage in work. The West African has not degraded his women folk, as many other peoples have, so that they often fill honourable and responsible positions, as Mary Kingsley pointed out long ago. His religion has led him neither to fanaticism nor to an Eastern passive conservatism, but to a humble spirituality which gives him a depth of character and a wish to know more : it has often led him to cruelty too, but it has been his logic, not his heart, that has been at fault. In organisation he has been reasonably and restrainedly democratic : tyranny was rare and war a last refuge : statesmanship seems usually to have been of a high order, probably because close responsibility to the tribe was ever-present in the mind of every individual and they were used to working together.

The West African certainly does not seem to possess an alert, enquiring or intellectual mind, and he has little originality, but as one knows that these qualities have been undervalued and discouraged for untold generations, one cannot assume that they are innately lacking. On the other hand, his mind is not naturally tortuous or unduly distracted, as the minds of Eastern peoples appear to Europeans, and if the premises are known a European can easily follow his simple straightforward reasoning : the West African may often be lacking in alertness and brilliancy, but his simple common sense carries him a long way in mass : the individual may not be clever, but the people often seem exceedingly wise.

Briefly, one can at present see no vast obstacle that will

hinder the West Africans in their progress: there is no great drag of religious tradition, no great social hindrance of caste, degraded womanhood or oppressive tyranny, no dead weight of economic interests to overcome, and although Europeans have so far mostly sought the West African in a rather narrow material way, yet progress has already been great. There still remain sincere religious depths, associated closely with an appreciation of the most real value of land, a sense of working together, a desire for progress, and an interest in biological matters which many other peoples might well envy, for they are invaluable in an agricultural country. Many of these talents have scarcely been appreciated or explored, and so have run to waste so far, yet they could be taken as a basis for a wider and fuller appeal, and if it is successful one can hardly doubt that it would lead the West Africans to a very high position among the farmers of the world. One does not pretend that this will be either easy or quick, but it is most certainly full of hope.

NOTES ON THE BIBLIOGRAPHY

CHAPTER I

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Agricultural Products of British West Africa, by Dudgeon (1911).

A List of the Trees, Herbs, Shrubs and Climbers of Sierra Leone, by Lane Poole (1916), and *The Useful Plants of Nigeria*, by Holland (1922), all deal with the crops and flora of the West Coast.

West African Agriculture, by Faulkner and Mackie (1933), is an excellent detailed account of the present agriculture, its technical problems and their possible solution. It is necessary to note carefully that this book, as its title states, deals with West African agriculture as a whole and does not usually distinguish between the southern West Coast area (dealt with in this study) and the northern hinterland area, which is predominantly Muslim and differs so greatly in many other ways.

CHAPTER III

Among the earlier anthropological works are *The Ewe Speaking People of the Slave Coast*, by Sir A. B. Ellis, the Reports of Northcote Thomas on peoples in Nigeria and in Sierra Leone, and *The Voice of Africa*, by Leo Frobenius. More recent are *Among the Ibos*, by Basden (1921), *The History of the Yorubas*, by S. Johnson, himself a Yoruba (1921), *Liberia, Old and New*, by Sibley and Westermann (1928), but especially *The Peoples of Southern Nigeria*, by P. Amaury Talbot (1926), and *Ashanti*, by Rattray (1923).

The Dual Mandate in British Tropical Africa, by Lord Lugard (1922), is a thorough and detailed discussion of problems of government and administration and is essential to a proper understanding of the present position.

The Golden Stool, by Edwin W. Smith (1926), is a most interesting, careful and thorough study of some of the great problems that arise when civilisation is brought to primitive peoples, and of the 'disintegration' of native life that may follow unless care is taken not to misunderstand native peoples.

Sir Henry Maine, in *Village Communities* (see under Chap. I), discusses a few points of Indian Experience of 'disintegration' that have occurred by the introduction of English law, etc.

CHAPTER IV

A Primer of Agricultural Economics, by Sir Henry Rew (1927).
Agricultural Tribunal of Investigation, Cmd. 2145 (1924), gives a critical comparison of English farming with French, German, Belgian, Dutch and Danish farming. There are numerous most useful appendices, especially on the history of farming in these countries.
The Organisation of Agriculture, by Pratt (1905), deals with the small farmer all over Europe and his business methods ; he describes the "silent revolution" in continental farming and compares it with English farming.
Modern Denmark ; its Social, Economic and Agricultural Life, by Hugh Jones (1927), is a very readable and informing account, and *British Farmers in Denmark*, by Bond (1928), is a critique of Danish farming as it presents itself to English farmers.
Today and Tomorrow, by Henry Ford and Samuel Crowther (1926), deals partly with very large-scale farming and presents a novel point of view.

REFERENCE WORKS :

The Wealth of Nations, Adam Smith, *Political Economy*, Mill, *Principles of Economics*, Marshall, all dicusss the question of scale in agriculture. See also Lord Ernle under Chap. I.

CHAPTER V

See *The Dual Mandate* and *The Golden Stool* under Chap. IV.
Land Tenure and Agricultural Production in the Tropics, by Dr. Martin Leake (1928), is exceedingly interesting ; it deals with the same problem as the present essay, but in a more general way. It is written from the point of view of an Indian agriculturalist in response to Lord Lugard's appeal in the *Dual Mandate* asking for the valuable experience of India on problems besetting Africa, and it should be consulted in connection with all the following chapters of this essay.
Indian Agriculture, by A. and G. Howard (1927), is a very readable précis of Indian peasant agriculture, its nature, its peculiar problems and their solution.
Tropical Agriculture in Malaya, Ceylon and Java, by the Hon. W. Ormsby-Gore, in *United Empire* for August, 1928, gives a short account of various types of agriculture with some interesting comparisons.

Kenya from Within, by W. McGregor Ross (1927), points out some of the practical problems that are created in plantation countries.
The Punjaub Peasant in Prosperity and Debt, by Darling (1925), deals with the difficulties confronting peasant agriculture in the Punjaub and some suggested solutions based on much experience. It gives references to the work of Calvert on these subjects.
Farm Ownership and Tenancy, by Dr. L. C. Gray and others (1923), gives a review and discussion of these subjects in the United States (Separate from Yearbook, No. 897, 1923).

Chapter VI

Co-operation in Danish Agriculture, by Harald Faber (1918), is a full account of all branches of Danish agricultural co-operation.
Co-operative Marketing of Agricultural Produce in England and Wales, Ministry of Agriculture (1925), gives a full account and discussion of agricultural co-operation in England and Wales.
The Organisation of Agriculture (see under Chap. IV) gives a clear account of agricultural co-operation all over Europe, but it is rather out of date.
Co-operation at Home and Abroad, by Fay (1925), gives an analysis of the whole movement, while *The Co-operative Movement in Japan*, by Ogata (1923), and *Co-operation in Egypt*, by Rashad (1930), are descriptions of local work
People's Banks, by Wolff (1914), and *Co-operation in Agriculture*, by Wolff, are both very informative. See also Darling, Calvert and others under Chap. V.
Co-operation for Africa, by Strickland (1933), gives a description of co-operation in Africa and discusses its probable problems and potentialities in a most interesting way.

Chapter VII

Education in Africa (1922) and *Education in East Africa* (1925), the two reports of the Phelps-Stokes Commission give much detail, analysis and discussion of education all over Africa, but some of the information will be necessarily out of date.
The Golden Stool (see under Chap. III) gives an excellent appreciation of the position and discusses African education as a whole.
The Keystone, by Sir Gordon Guggisberg (1924), is an appeal for character-forming which is especially important on the West Coast.
The Education of the South African Native, by Loram (1917), contains very careful comparative work on the mental characteristics of African, European and Indian children.

The Folk High Schools of Denmark and the Development of a Farming Community, by Begtrup, Lund and Manniche (1926), traces the origin of these schools and explains their guiding principles clearly and briefly.

The Nature-Study Idea, by L. H. Baily (1920), discusses the guiding principles of Nature-Study. See also Sir John Russell's Presidential Address, Section M, British Association (1924), and C. G. T. Morison's Presidential Address, *Agriculture and National Education* (1928). For English Rural Education see *Rural Education*, Board of Education (1926), and for examples see *Suggested Syllabus of Rural Education*, Hertfordshire County Council (1927), and *Boys' and Girls' Poultry Club Journal* of East Sussex.

Africa View (1930) and *A Biological Approach to Education in East Africa* (Overseas Education, Oct., 1930), both by Julian Huxley, show the new attitude on Nature-Study. See also *Agricultural Nature Study in Africa*, by A. S. Walford (Overseas Education, April, 1931).

CHAPTER VIII

Anthropological works cited under Chap. III.

The Golden Stool and *The Dual Mandate* deal with various aspects of land tenure and its social effects. *Land Tenure and Agricultural Production* cited under Chap. III deals with the agricultural aspect, a separate chapter of this book appeared in the Empire Cotton Growing Review for 1924 under the title of *Some Thoughts on Land Tenure in Tropical Africa.*

Ashanti Law and Constitution, by Rattray (1929), is most useful, especially Chap. XXXIII.

The Industrial Organisation of an Indian Village, by Sir Theodore Morison (1906), is an example of an economic study in primitive rural conditions.

CHAPTER IX

The Extension Service Review issued monthly by the United States Department of Agriculture gives accounts of all kinds of extension work.

The Alabama Moveable School, by T. M. Campbell, of Tuskegee, gives a history and description of the travelling demonstration. Mr. Campbell, who is himself a negro, is in charge of agricultural extension work among negroes in the eight States of Alabama, Florida, Georgia, Louisiana, Mississippi, Oklahoma, Tennessee and Texas.

The Use of the Kinema in the Guidance of Backward Races, by J. Russell Orr, in the *Journal of the African Society*, July, 1931, discusses the present position and future possibilities.

Chapter X

The Golden Stool gives an excellent appreciation of the whole problem, and *The Dual Mandate* explains the detailed working of "indirect government". The very sympathetic studies, in the form of stories, by Sir Hugh Clifford, deal with the impact of civilisation from the points of view of both the brown and the white man. Though they are most concerned with the East, they are stimulating to an appreciation of the point of view of the black man. *Saleh: a Sequel* is notable.

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